лоропластика", а 10% са индицирани за стомашна резекция, като този процент се увеличава значително при язви над 2 см.

Спешната хирургия за кървяща пептична язва носи риск от 26 до 30%. Най - важните предиктори за смъртността са възраст над 70г.р придружаващи заболявания, шок при приемането. При такива операции се посочва риск 50% и повече. Леталитетът се повишава при болни, имащи нужда от над 5Е кръв.

I Стари калозни язви с отворен съд и протрузно кървене, остра язва с хеморагия, постъпване на кръв през пилора без видян източник се извършва операция по спешност. При болни в напреднала и старческа възраст се извършва малка по обем и времетраене операция – лигатура, обшиване, ексцизия

II – Стари калозни язви с тромбозиран съд при сигнал за хеморагия се извършва операция, след електро – коагулация или склерозация.

Язви по малка кривина или язвения процес се съчетава със стеноза на пилора – операцията е задължителна

III – Болни в момента на ендоскопското изследване хеморагията е преустановена, дъното на язвата е покрито с налеп – говорещ за премахната опастност от хеморагия не се оперират по спешност, а се третират в планов порядък за операция по показания

IV – Малки язви, без калозност, с изключение на тези по малката кривина на стомаха, след спиране на кървенето минават на консервативно лечение – H2 блокери и/или ерадикационна терапия

Изводи:

На всички пациенти с кървяща СДЯ трябва да се извършва спешна ФГС за доказване на хеморагията по Forrest, ендоскопска хемостаза и да се изследва за HP. Ерадикацията трябва да се прилага на всчки HP положителни болни, с цел превенция на хеморагията.

Ние сме привърженици на стомашната резекция с отстраняване на язвата, а като алтерантива приемаме прошиването на язвата с или без екстрадуоденално лигиране на съдовете, пилоропластика / особено при предни дуоденални язви/.

Днес в светлината на новите разбирания за патофизиологията на пептичната язва като заболяване с инфекциозна генеза, подкрепяме тезата за изолирана ваготомия, но със задължително прилагане на H2 – блокери или ИПП. Основните фактори са пациентът с неговите рискови фактори и опита на хирурга с големия набор операции, а резултатите ще докажат правотата на лансираната теза.

1.2. КЪРВЕНЕ ОТ ГОРЕН ГАСТРО-ИНТЕСТИНАЛЕН ТРАКТ

Игнатов

Въведение

Въпросът за кръвотеченията в горния етаж на храносмилателния тракт винаги е бил един от основните, с който се е сблъсквала спешната хирургия от древността до наши дни.

Проблемите произлизат, както от своевременната и точна диагноза, така и от избора на лечение, било то оперативно или консервативно. Известно е, че смъртността при кръвотеченията от горния етаж на гастро-интестиналния тракт е все още 10 %. /1-3/

Неоперативните методи за преустановяване на острите езофаго-гастро-дуоденални кръвоизливи невинаги са ефективни, а оперативното лечение на върха на кръвоизлива, като принудителна мярка – опасно. Нерядко се налага във връзка с острата анемия и тежките хиповолемични разстройства, да се прибягва към минимални (палиативни) операции. Често възникват ситуации, когато в някои случаи е необходимо за се подложи болният на висок оперативен риск, ако кръвотечението усложнява друга придружаваща тежка патология. Неточната ендоскопска диагноза или липсата на такава допълнително усложняват оперативната интервенция и водят до нежелателни изходи от същата.

Посочените причини, въпреки успехите на съвременната реанимационно-анестестезиологична медицина и високата квалификация на хирурга, обуславят все още високи показатели на смъртност, след операции "на върха на кръвоизлива", които достигат до 26 % /4/. Пациентите с кръвотечения обикновено загиват не във връзка с кръвозагубата, а от декомпенсацията, свързана с други заболявания /5,6,7,8/. От особена важност е, че до скоро, не бяха разработени ефективни нехирургични методи за овладяване острите кръвотечения от стомаха и дуоденума.

В зависимост от своята етиопатогенеза, кръвотеченията биват разделени на вариокозни и неварикозни (пептични), което предопределя и различните методи за тяхното овладяване.

Съвременната спешна хирургия, рационалната диагностична и лечебна тактика при комплексното лечение на болни с остри кръвоизливи от горния отдел на храносмилателния тракт, включват в себе си:

1. Спешна ендоскопия с цел локализиране мястото на кървене, установяване източника и вида му.
2. Прилагане в момента на активно кървене на един от неоперативните ендоскопски методи, за преустановяването му, който да е надежден и малко травматичен за болния – електрокоагулация, инжекционна терапия (склерозиране), лигатури, аргон-плазма, топлинна сонда, Nd:YAG лазер, клипси.
3. Провеждане на интензивно лечение, в направление ликвидиране последствията от острата анемия и хиповолемичния шок.
4. Избор и продължение на по-нататъшното лечение: оперативно по показание след съответната подготовка или консервативно – медикаментозно.
5. Изпълнение на спешна оперативна интервенция при невъзможност да се преустанови кървенето с неоперативни ендоскопски методи или при рецидивни кръвотечения, заплашващи живота на болния. Съществуват шест конкуриращи се метода за ендоскопско преустановяване на кръвоизливите: аргон-плазма, склерозираща терапия, електрокоагулация, топлинна сонда, Nd:YAG лазер фотокоагулация, клипси.

РОЛЯ НА ПОЗИТРОН-ЕМИСИОННАТА ТОМОГРАФИЯ ПРИ ПЪРВИЧНА ДИАГНОСТИКА И ПРОСЛЕДЯВАНЕ НА ГАСТРО-ИНТЕСТИНАЛНИ СТРОМАЛНИ ТУМОРИ

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Гастроинтестиналните стромални тумори са рядка група мезенхимни неоплазми, възникващи по цялата дължина на храносмилателната система - от хранопровода до ректума. На тях се падат 0,1 - 3,0% от всички тумори на гастроинтестиналния тракт (ГИТ). За първи път през 1983 г. Mazur и Clark въвеждат термина стромален тумор. Преди това те са били определяни като гладкомускулни тумори, саркоми или тумори с неясна хистогенеза (1).

Гастро-интестиналният стромален тумор е най-честият мезинхимален тумор в ГИТ. По-малко от 1% от първичните стомашни тумори и 5-7% от саркомите на ГИТ се падат на ГИСТ. Малки асимптоматични GIST по литературни данни се откриват при аутопсия в над 50% от индивидите над 50 год. (2) Всяка година между 5 000 и 10 000 нови случая се диагностицират в САЩ, като честотата мъже-жени е почти еднаква, с леко превалиране на мъжете. Най-засегнатата възрастова група е 60-70 години, много рядко такъв тумор се открива при пациенти под 20 години.

По-голямата част от GIST са спорадични. Съществуват и наследствени GIST, фамилни тумори (пациентите са с c-KIT рецептори, алфа полипептидни /PDGFRA/ мутации), описани като неврофиброматоза тип I (силно c-KIT позитивни) и триада на Carney (рядко c-KIT позитивни), възникваща предимно при млади жени (локализация на ГИСТ в стомаха, параганглиом и белодробен хондром). Само при 25% от пациентите с триадата тя се явява в напълно разгънат вид. (3)

Приблизително 60% от GIST възникнат в стомаха, 30% в тънките черва, 5% в ректума и 5% в хранопровода. GIST на дебелото черво и ректума са по-малко от 1% от всички колоректални новообразования.

Рядко GIST може да се развие извън храносмилателния тракт (оментум, мезентериум, панкреас и ретроперитонеално пространство) - т.нар. екстрагастро- интестинални GIST. (4) Метастазите в лимфните възли са изключително редки. Метастази в белите дробове и в други извън корема места се наблюдават само в напреднали случаи.

ДИАГНОЗА

Макроскопски ГИСТ са сиворозови възли, разположени субмукозно или с разязвяване, както много често и с кистична дегенерация и/или некроза при по-големите формации.

Поставянето на диагноза ГИСТ изисква хистологично изследване и задължителна имунохистохимична верификация за уточняване на хистогенетичния произход. За ИХХ потвърждение се използват панел от маркери, включващи c-KIT, CD34, Vimentin, Desmin или LSMA, S100p, Synaptophysin.(5)

Ключът към диагнозата ГИСТ е позитивното мембранно и/или цитоплазмено оцветяване на туморните клетки със c-KIT антитялото, което се наблюдава в 94% от случаите. Друг маркер в подкрепа на диагнозата е CD34, който е позитивен в 70 - 80% от случаите, 30-40% от туморите са фокално позитивни за LSMA, по-малко от 5% са реактивни за Vimentin, Desmin и S100p. Позитивността за S100p, Synaptophysin, Vimentin, Desmin, LSMA

РЕКОНСТРУКТИВНИ ТЕХНИКИ СЛЕД ПРОКТЕКТОМИЯ

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Резюме:
Карциномът на ректума е второто по честота злокачествено новообразуване на храносмилателния тракт (след карцинома на дебелото черво). С напредъка на сфинктерсъхраняващите техники се подобриха следоперативните функционални резултати и качеството на живот на пациенти с карцином на долна и средна трета на ректума. Не са напълно изяснение предимствата на реконструктивните техники при възстановяването на дебелочревния пасаж. Извършването на термино-терминална коло-анална анастомоза е техчниески по-лесно, но функционалните резултати са по-лоши в сравнение с дебелочревните резервоари. Целта на този обзор е обобщаване на съвременните данни за реконструктивни техники след проктектомия.

КЛЮЧОВИ ДУМИ: Карцином на ректума, дебелочревен пауч, проктоколектомия, възстановяване, анастомоза, хирургичен

RECONSTRUCTIVE TECHNIQUES AFTER PROCTECTOMY

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Rectal cancer representing the second most common gastrointestinal malignancy (behind colon cancer). With the advent of sphincter preserving techniques, patients with mid and low colorectal cancers enjoy the benefits of better postoperative functional outcomes and quality of life; however, controversy exists over which reconstructive technique is superior in restoring bowel continuity. Construction of a straight coloanal anastomosis is technically simpler, but functional outcomes are inferior compared with colonic reservoirs. The purpose of this review is to summarize the current data regarding reconstructive techniques following proctectomy.

KEYWORDS: Rectal neoplasms, colonic pouches, proctocolectomy, restorative, anastomosis, surgical

ВЪВЕДЕНИЕ: За основен метод на лечение на рак на ректума е възприет като стандарт оперативната намеса със приложена неоадювантна терапия при напреднали карциноми на ректума (1-4). С развитието на сфинктеросъхраняващите методи при пациенти с средни и ниски ректални карциноми се постигат по-добри функционални резултати и качество на живот. Въпросът дали реконструктивната техника е по-добрия избор при възстановяването на чревния пасаж не е напълно изяснен. (5) Извършването на термино-терминална колоанална анастомоза (ТТКА) е технически по-лесно, но функционалните резултати са по-лоши в сравнение с операции,завършващи със създаване на чревни резервоари. ТТКА се свързва с относително по-лоша следоперативна функция на дебелото черво поради премахването на ampula recti, която изпълнява роля на ректален резервоар. От друга страна трудностите в достъпа и при извършването на тазов резервоар в мъжкия таз и следоперативни затруднения при евакуацията могат да създадат проблеми при дебелочревния J-pouch. (6-8) Въвеждането на трансверзална колопластика (ТК) позволи преодоляването на лошата дебелочревна функция след ТТКА и техническите затруднения при J-pouch. Модифициране на J-pouch техниката посредством създаване на термино-латерална коло-анална анастомоза предлага нов подход, намаляваш някои от недостатъците и усложненията на подхода със създаване на резервоар. Съществува значителен брой проспективни проучвания с добър дизайн, сравняващи тези реконструктивни техники. В тази статия преглеждаме съвременните литературни данни за гореспоменатите техники по отношение на постоперативните усложнения, функцията на червата и качеството на живот след операция. (9)

Общата честота на инсуфициенция след създаване коло-ректална анастомоза варира от 3% до 19%, като рискът е най-висок при ниските анастомози (10-14). В литературата няма точно установено определние за „инсуфициенция на анстомозата" при ниска предна резекция (15). Невинаги ограничените тазови абсцеси без установено изтичане и изтичане от линиите на съшивателя при дебелочревни пауч-пластики се включват в определението „инсуфициенция" (16). Дефинициите и критериите за установяване на инсуфициенция на анастомозата варират и затрудняват адекватното сравняване на честотата им в различните проучвания (17-19). В широкия смисъл на инсуфициенция (наличие на тазов сепсис) се съобщава за честота от порядка на 5-14% (20-22). Честота на тазовия сепсис при ниски анастомози е 8-10%, включително и изтичане на чревно съсдържимо от анастоозата, инфекциозни колекции в таза, със или без доказано изтичане от линиите на съшиване и ентеро-вагинални фистули. Няма значителна разлика в честотата на тазов сепсис при пациенти с пауч-пластика и термино-латерална анастомоза.(23-27)

Методи за извършване на анастомоза

След ниска резекция при карцином на ректума, чревният пасаж се възстановява посредством колоанална ниска анастомоза, извършена чрез различни техники.

Анастомоза с автоматичен съшивател

Най-често прилаганият метод за колоанална анастомоза е чрез интралуминален трансанален съшивател. Сравнително по-трудно технически е налагането на кесиен шев на ректалния чукан и осигуряването на рамото на трансанално въведения съшивател, тъй като аноректалният участък има тенденция за ретракция към тазовото дъно.(28)

Видимостта често е затруднена поради индивидуални предпоставки като хипертрофирал пикочен мехур при простатна хиперплазия, увеличена матка, тесен таз при мъже и други.(29)

Поради това двуетапната техника за съшиване е най-често прилаганият метод, особено при по-корполентни пациенти (30). Double cross техниката се изразява в съшиване и трансециране на аноректалният участък дистално от ту-

Избор на отворена или лапароскопска резекция при карцином на дебело и право черво

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доц. д-р Никола Колев, д.м.
доц. д-р Валентин Игнатов, д.м.
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Обзор: В епохата на миниинвазивна хирургия лапароскопската хирургия при дебелочревен карцином е възприета като онкологичен еквивалент на конвенционална отворена хирургия. Миниинвазивната хирургия на право черво все още е в процес на утвърждаване, като прилагането ѝ в практиката не е рутинно. Литературата за лапароскопска резекция на дебело черво и ректум е предимно ретроспективна, като има ограничен брой проспективни анализи.

Настоящата публикация анализира резултати в литературата и дискутира настоящото приложение на хирургичните методи на лечение на дебелочревен и ректален карцином. Извършен е преглед върху по-скорошни ретроспективни и проспективни данни. Проспективните рандомизирани проучвания, сравняващи лапароскопска с отворена хирургия, е ограничен. Не се установяват разлики в честота на локални рецидиви за петгодишен период. Изтъкват се по-добри краткосрочни резултати (по-бързо възстановяване, по-кратък болничен престой, намалена нужда от аналгезия), но за сметка на по-дълго оперативно време и по-висока цена. При лапароскопско лечение на ректален карцином все още няма данни за еквивалентност на методите на отворена и лапароскопска хирургия. Отворената хирургична резекция остава метод на избор при ректален карцином. Очаква се дългосрочни резултати от провеждащи се мултицентрични проучвания за доизясняване на ролята на лапароскопията при лечение на среден и нисък ректален карцином.

КОЛОРЕКТАЛНИЯТ КАРЦИНОМ (КРК) е втора по честота причина за смърт в развитите страни и съставлява около 25% от всички онкологични болести. Според СЗО за 2009 г. са регистрирани приблизително 1 000 000 нови случаи и 10% от всички новорегистрирани случаи на карцином.[1] В развитите страни се срещат 68% от всички случаи.[2] Като високо рискови области се определят Северна Америка, Европа и Австралия. Честотата на КРК нараства с възрастта. Заболяваемост при 30-годишни е 4/100 000, докато при 80-годишни достига до 120/100 000. Най-засегнатата група е между 60- и 80-годишна възраст, а при ректален карцином (РК) е между 50- и 70-годишна възраст.[1]

Хирургично лечение на дебелочревен карцином

Лечението на дебелочревен карцином (ДЧК) е стандартизирано: при локализации в дясно дебело черво се извършва дясна хемиколектомия, при локализации в ляво дебело черво – лява хемиколектомия. Тумори, локализирани в сигмоидно черво, се отстраняват посредством резекция на сигма. Съществуват и разширени модификации на горепосочените методи. С усъвършенстване на медицинската апаратура и техника все по-вече операции променят своя достъп – от отворен (конвенционален) в миниинвазивен (лапароскопски).[4, 5] Необходими са достатъчен брой проучвания, за да може да се заключи дали лапароскопският метод е еквивалентен на отворения, който доскоро бе „златен стандарт".

Лапароскопията е предпочитан метод при много други операции (напр. билатерална/рецидивираща херниорафия, гастректомия, спленектомия, адреналектомия). Лапароскопската резекция има предимства: козметични разрези, намалена аналгезия и по-рано връщане на пациента към обичайните му дейности. Този метод навлиза и в областта на хирургията на дебело и право черво. Въпреки че лапароскопският метод е възприет сравнително бързо при доброкачествени болести, приложението му при колоректални тумори има бавно начало поради дискусии относно т.нар. порт-сайт метастази и онкологичната адекватност на миниинвазивния достъп. Посредством няколко рандомизирани проучвания[3-6], сравняващи лапароскопски и отворен метод, се показват еквивалентни данни по отношение на някои онкологични резултати.[2, 5] Освен това, клиникопатологичните показатели, като индекс на телесна маса (BMI), пол, размер на тумора и локализацията, са допълнителни фактори, които трябва да се анализират при изучаване на въпроса.

Лапароскопска резекция на дебело черво

Началното приложение на този метод е дискутабилно, стига се дори и до първоначален мораториум върху лапароскопската колектомия в началото на 1990 г. след първоначални съобщения за раневи и порт-сайт рецидиви.

При стандартната онкологична хирургия се извършва чревна резекция *en bloc* с достатъчни проксимални и дистални резекционни граници, като за коректно стадиране са необходими поне 12 лимфни възела.[6] Онкологичните резултати се оценяват спрямо честотата на рецидив и смъртност, свързани с карциномната болест. Първото значително проучване върху лапароскопската колектомия при ДЧК е моноцентричното рандомизирано проучване от Барцелона, публикувано през 2002 г.[7] Общо 219 пациенти с десностранна и левостранна локализация са рандомизирани в две групи – отворена и лапароскопска колектомия. Лапароскопската група демонстрира сравними онкологични резултати с отворената група и дори по-добра преживяемост при пациенти със стадий III. Тези резултати по-късно са потвърдени при дългосрочното проследяване (от 77 до 133 месеца, средно 95 месеца).[8]

Особенно важно за налагане на лапароскопската хирургия е проучването COST, публикувано в *New England Journal of Medicine* през 2004 г.[9] То включва 872

Риск-базиран избор на оперативни техники при ректален карцином

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Обзор: Ректалният карцином (РК) е болест, при която оперативното лечение през последните години претърпя чувствително развитие. Въведоха се оперативни методи, с които се създадоха възможности за увеличаване броя на сфинктер-съхраняващите операции при добра функционалност на аноректалния континентен орган, без това да влияе на онкологичната радикалност на лечението. Въведоха се рутинно механични съшиватели и се създадоха условия за трансанални анастомози с по-добра функция и по-малко усложнения. Редуцира се прилагането на операциите от типа pull-thraugt и инвагиниращи анастомози, което намали чувствително недостатъците при извършването им. Осъществяването на оперативните интервенции по лапароскопски път при подходящи условия и показания измества до известна степен рутинните оперативни методи в по-ранните форми на туморния процес. Въвеждането на тоталната мезоректална ексцизия при локализация на тумора в средната и долна трета на ректум снижава локалните тазови рецидиви с 20% и понастоящем е задължителна оперативна процедура.

Оперативното лечение на ректалния карцином (РК) изисква голям хирургически и индивидуален опит при избор за определяне на възможността за радикалност и на метод за извършване на сфинктер-съхраняваща операция.[1-3,6]

Рискът при оперативното лечение е различен: (1) риск при извършване на операции по спешност; (2) риск при извършване на операции с относителна или отложена спешност; (3) риск при наличие на тежки придружаващи соматични състояния; (4) риск при планови хирургични интервенции; (5) риск от време, място и личен опит на хирурга, който извършва лечението.

Оценка на оперативния риск

Предоперативната информация, получена от ректално туше, ендоскопия, ендоректална ехография, абдоминална ехография, компютър-томография (КТ), магнитно-резонансна томография (МРТ) и биопсия дават преценка за обективно предоперативно състояние, определящо оперативния риск от общ и локален характер.[4]

С увеличаване на обема на хирургическите интервенции чрез комбинирани и органосъчетани операции с цел радикалност на лечението, рискът при оперативното лечение стана многообразен. Оперативният риск трябва да се балансира от възможности, породени от: (1) възможност за радикално лечение, съобразен със соматичния статус; (2) от стадия на болестта; (3) техническо съвършенство на хирурга; (4) възможност за радикалност и локален рецидив; (5) от хистологичната характеристика и агресивност на туморния растеж; (6) от предоперативната моторна и сензорна недостатъчност, породени от напреднала възраст, придружаващи болести и предхождащи оперативни интервенции в аноректална област; (7) от състоянието на сърдечносъдовата система и други соматични болести, оказващи влияние върху реологията на кръвта; (8) от емоционалност, породена от дилемата между екстирпация с абдоминална стома и сфиктер-съхраняваща операция; (9) интелигентността на пациента, влияеща върху следоперативната социална адаптация.[5]

Тези рискови фактори водят и до утежняващи обстоятелства, когато е налице необходимост от спешна оперативна интервенция, при която предоперативното механично очистване на дебелочревния тракт не може да се осъществи. Затова стремежът към извършване на операции в отложена спешност винаги стои като алтернатива.

В етапа на планово хирургично лечение механичното очистване на червото е до голяма степен е решаващ фактор при избор на оперативен метод. С него не може да се прави компромис. Балансираният риск може да се намали чрез извършване на палиативни резекции, предоперативни коригиращи процедури (кръвопреливане, коригиране на воден, белтъчен и йонен баланс).

Избор на техники според туморната локализация

Рисковите фактори в зависимост от локализацията на туморния процес са: (1) рискови фактори при локализация в ректосигмоидната област и горна трета на ректум; (2) рискови фактори при локализация в горна и средна трета на ректум; (3) рискови фактори при локализация в средна трета на ректум; (4) рискови фактори при ангажиране на долна трета на ректум; (5) рискови фактори при ангажиране на съседни тъкани и органи; (6) рискови фактори при наличие на чернодробни метастази (едноетапни, дву- и многоетапни операции); (7) рискови фактори след приложено предоперативно и следоперативно лъчелечение и химиотерапия.[7]

При локализация на тумора в горна трета на ректум и ректосигмоиден преход рисковете са най-малки.[7] Тук се извършват резекции с възстановяване на континуитета на чревния тракт и липса или минимални промени в акта на дефекация. При операции по спешност стремежът е отстраняване на тумора и извършване на операции тип *Hartmann*. Ако това не е възможно, метод на избор остава налагане на отбременяваща стома. При тези локализации рисковете се увеличават при прорастване на тумора към пикочен мехур, матка, яйчници, тънко черво.

При локализация на тумора в средна трета на ректума се извършват операции с по-висок риск от локален характер.

ОСТЪР НЕКРОТИЧЕН ПАНКРЕАТИТ

Анализ на болни за десетгодишен период

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Използвани съкращения:

ОП - остър панкреатит
НП - некротичен панкреатит
ПА - панкреатичен абсцес
КТ - компютърна томография
ГИ - гастроинтестинален
ОЖП - общ жлъчен проток
ЕРХПГ - ендоскопска ретроградна холангиопанкреатография

През последното десетилетие се отбелязва съществен напредък в разбирането за патофизиологията и цялостната диагностично-терапевтична стратегия при пациентите с Остър панкреатит (ОП). В контраст на ранната хирургична интервенция в миналото, понастоящем е налице изразена тенденция към интензивно лечение в началните периоди, по- консервативен подход и/или мини-инвазивни процедури.

Днес по – голямата част от пациентите преживяват първата фаза на тежкия панкреатит благодарение на значителния напредък в интензивното лечение. Това обаче води до увеличаване и на риска от развитието на късен сепсис и усложнения.

Клиничното протичане на Острия панкреатит варира от леки, оточни до тежки некротични форми (15 -25% от всички по литературни данни).

Тежестта на ОП е свързана с:

✓ Либерацията на вазоактивни и токсични субстанции;

✓ Развитието на системна полиорганна (белодробна, сърдечно-съдова и бъбречна) недостатъчност;

✓ Обемът на некротичния процес – панкреатична паренхимна некроза и/или мастно-тъканна некроза в ретроперитонеалното пространство;

✓ Бактериалната контаминация (абсцеси, флегмони, псевдокисти и фистули).

Основните *рискови фактори* определящи независимо един от друг изхода от тежките некротични форми на панкреатит са:

- ранното развитие на мултиорганна недостатъчност;
- размерът на некрозата (> 50%);
- инфектирането на некрозата (40 до 70% от болните с НП).

Тежките форми на остър панкреатит се развиват най-често в две фази:

- Първите две седмици се характеризират с развитието на SIRS и съпроводено от: плевропулмонални, сърдечно-съдови и бъбречни усложнения.

БОЛЕСТОТВОРНО ДЕЙСТВИЕ НА РАЗЛИЧНИ ПРИЧИНИ

Валентин Л. Игнатов, Цветан Т. Цеков

„Колко нечестно! Само едно здраве и толкова много болести!“
Виктор Шлихтер

Многочислени физични, химични, биологични, психични и социални причини, с които постоянно или инцидентно се среща човек, могат да станат болестотворни, ако превъзхождат приспособителните (адаптационните) възможности на организма или е изменена неговата реактивност.

БОЛЕСТОТВОРНО ДЕЙСТВИЕ НА ФИЗИЧНИТЕ ПРИЧИНИ

I. Механични причини

Въздействието на механичните причини се определя от формата, масата им и скоростта, с която се движат. Механичното въздействие може да бъде удар, разтягане или натиск. То е обединено с понятието травматични болести. Травматичните болести представляват сбор от всички местни и общи увреждания, предизвикани от механичните причини.

Трябва да отбележим, че освен от външната среда (екзогенни) съществуват и вътрешни (едногенни) причини, които оказват болестотворно действие върху различни органи и системи. Например, газове в червата предизвикват метеоризъм, газове в плевралната кухина – пневмоторакс, течност в гръдния кош – хидроторакс, течност в перикардната торбичка – хидроперикард и течност в коремната кухина – асцит. Механично въздействие могат да предизвикват големи кръвоизливи и тумори. Всички те по механичен път могат да доведат до функционални смущения в притиснатите органи.

Резултат от увреждащите въздействия на механичните причини са рани с нарушаване целостта на кожата и увреждания със запазване на нейната цялост (натъртване, компресия, сътресение на мозъка, навяхване и изкълчване на стави, счупване на кости).

Най-тежкото общо увреждане е т.нар. травматичен шок. Той протича в две фази – възбудна и задръжна. Основният патогенетичен механизъм е свързан с намалението на обема на кръвта и по-специално на плазмата. Силната болка през фазата на възбуждане активира хипофизо-надбъбречната система, което предизвиква увеличаване на количеството кръв,

LAPAROSCOPY IN THE MANAGEMENT OF COLORECTAL CANCER

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INTRODUCTION

` Since the introduction of laparoscopic surgery, minimally invasive techniques have been widely used for benign and malignant diseases.(1,2) Although many surgeons perform laparoscopic colectomy for benign diseases, its application for colorectal malignancy had slow progress because of oncological considerations.(3) Over time, many randomized controlled trials have been published comparing open to laparoscopic surgery for colorectal cancer, which show that in experienced hands, competent oncology resections can be performed the results are equivalent to open surgery (4-7). However, the results of the minimally invasive surgery for rectal cancer have not been thoroughly investigated and large multicenter randomized trials are underway.

Large number of randomized controlled trials comparing laparoscopic to open surgery for colon cancer have established better short-term results - less pain, shorter length of stay, faster return of bowel function and equivalent oncological outcomes (2-5). Laparoscopic rectal surgery is still developing with promising short-term benefit, although depending on the skills and techniques of the surgeon (6). Surgery of rectal cancer requires more technical skills (total mesorectal excision, low pelvic anastomosis), many fear that the oncological principles could be compromised during laparoscopic resection. In addition to oncological concerns, the widespread of laparoscopic surgery for colorectal cancer is impeded by the significant learning curve.

Hand-assisted techniques introduced in the 1990s were an attempt to overcome some of these limitations and provide an overlap between open and laparoscopic techniques and the transition from open to minimally invasive surgery for many surgeons (1,8). Acceptance of minimally invasive procedures by patients and surgeons led to the developent of new technologies to ease the laparoscopic approach. The introduction of single incision laparoscopic surgery (SILS) devices has allowed fewer cuts. (9) The clinical application of endoscopic natural orifice transluminal surgery (NOTES) in colorectal disease is not yet fully accepted, but it was possible great advances in instrumentation and improving techniques for specimen extraction after laparoscopic colectomy (12).

SYSTEMIC BENEFITS

Basic science studies have demonstrated the better preservation of oncological and immunological functions after laparoscopic surgery before trials on humans (7-9), thus giving hope for better long-term oncologic outcome. Tumor cells are found in systemic blood circulation and in the peritoneal fluid immediately after surgery and if they survive may avoid the immunological defense of the organism. The surgical trauma causes immunological alterations and the organism might be vulnerable during the postoperative period (7-9). Laparoscopic surgery causes lesser trauma and therefore less effect on the immune system, decreases the proliferation stimuli for cancer cells and neoangiogenesis (7-9,11). The changes can last shortly after the operation, but some are observed after months or longer (11). These potential advantages do not provide better long-term outcomes in human trials, although some report better oncological results after laparoscopic surgery in terms of longer cancer-related survival and less tumor recurrences (10-14).

The rate of conversion to open surgery is still very high, as demonstrated by three multicenter prospective trials - the NCI Clinical Outcomes of Surgical Therapies (COST; 21%), Colon Cancer Laparoscopic or Open Resection (COLOR; 17%), and the Conventional versus Laparoscopic-Assisted Surgery in Colorectal Cancer (CLASICC; 29%) (15,16). This could be due to more precautious behavior of the surgeons and their inexperience.

A meta-analysis from 2006 demonstrated intriguing results. It includes 1134 patients after colectomy in two periods – 1996-2000 and 2000-2004. Laparoscopic colectomy was introduced as an option only in the second period. The authors found that 3-year overall survival decreased in the latter, while the overall survival of patients after open colectomy remained the same over the two periods. (17)

DIAGNOSTIC MODALITIES IN COLORECTAL CANCER – ENDOSCOPY, CT AND PET SCANNING, MAGNETIC RESONANCE IMAGING (MRI), ENDOLUMINAL ULTRASOUND AND INTRAOPERATIVE ULTRASOUND

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Colorectal cancer (CRC) is the third most diagnosed cancer in men, next to prostate and lung cancer. In women it is the second most diagnosed cancer, next to breast cancer. In a time of limited resources in health care, there has been considerable debate which imaging modality offers the best non-invasive examination of colorectal cancer, offering both detection and characterization. The use of multiple diagnostic modalities is both costly and time-consuming. Clinical evidence amassed over the last several decades indicates that routine colorectal cancer (CRC) screening, compared to no screening, detects CRC at an earlier stage, reduces the incidence of CRC or the progression early CRC through polypectomy, and reduces CRC mortality.

Endoscopy

The first complete examination of the colon using a flexible fiberoptic endoscope is reported by Wolff and Shinya in 1971 [42]. Nowadays colonoscopy is the gold standard for evaluation of the entire colonic mucosa with therapeutic capability of resecting detected malignancies.

In the last years the colonoscpopy is the modality of choice to detect and correct the adenomatous polyps and colorectal cancer. The diagnosis CRC can be confirmed after 6 biopsy in a known malignant pathology and by obtaining more tissue sampling and/or a second opinion from a consulting pathologist in none diagnostic, highly suspected colon lesion. Besides the role as a diagnostic tool in CRC the colonoscopy identificates subsequent lesions at the time of surgery, which is called preoperative endoscopic marking. It is performed through metallic clip placement and endoscopic tattooing.

The colonoscopic equipment consists of camera and four-way tip controls [43]. The camera can produce images of high-definition quality. The fourway tip controls include (1) examination of a found patch to confirm an abnormal growth; (2) insufflating air to dilatate the lumen for mucosal inspection and relieving air after examination, (3) irrigating a suspected region; (4) suctioning to avoid missing lesions under fluid, and (5) inserting biopsy devices.

The patient must undergo bowel preparation - taking clear liquid diet and ingesting laxative solutions for colon cleansing the day before examination. Sedation is needed to relieve the discomfort during the procedure, but it increases the costs. The complication of sedation are different cardiac disturbances such as hypotension, arrhythmias,oxygen desaturation, and others. The preparation with purgatives may cause abdominal discomfort, nausea, and other symptoms. The colonoscopy continues from 30 minutes to an hour. The risk during colonoscopy consists in colonic perforation in 0,1 % of cases. Colonoscopy fails to visualize the entire colon in 10–15% and it may miss up to 10–20% of polyps fewer than 10 mm.

Colonoscopy is golden standard for diagnosing of CRC but there are more symptoms which could be evaluated and appreciated by endoscopic examination, for example- abdominal pain, unexplained gastrointestional bleeding, diarrhea of unexplained origin, chronic inflammatory bowel disease, etc. It is also the most common interventional modality for polypectomy, hemostasis, balloon dilation, foreign body removal, palliative treatment of neoplasms, etc. Colonoscopy could be the best screening option for all none specific underdiagnosed gastrointestinal symptoms.

Colonoscopy removes all detected polyps, regardless of histology type- adenomatous or hyperplastic. Not all of them must undergo resection. The polyps vary in size and polyps under 5 mm are not detected endoscopic. For detection of polyps smaller than 5 mm the virtual colonospcopy is the alternative to the conventional colonoscopy.

Virtual Colonoscopy

SURGICAL STRATEGIES FOR LIVER METASTASES FROM COLORECTAL CANCER

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INTRODUCTION

Colorectal carcinoma is one of the more common types of cancer around the world. For patients in UICC stage I (i.e., those who have pT1/2 tumors and do not have any lymph node metastases), the probability of surviving 5 years is 90% (2). The prognosis of patients in stages II (pT3/4 tumors without lymph node metastases) and III (tumors with lymph node metastases) has improved steadily in recent years: At present, the 5-year survival in these two groups is 80% and 60% (1).

Approximately, 1.2 million cases of CRC occur yearly worldwide, with 412,900 new cases diagnosed in western Europe alone and 150,000 in the United States.(1,2) Resection of colorectal liver metastases (CRLM) is the only treatment offering the possibility of cure and has been shown to provide clear survival benefits.(3) Unfortunately, only 10% to 20% of patients with CRLM are eligible for this procedure upfront. On the other hand, during the last 10 years, major advances in the management of CRLM have taken place involving principally three different fields: oncology (new and more effective chemotherapeutic agents), interventional radiology (portal embolization and radiofrequency), and surgery (better instruments and newer techniques). These advances as part of a multidisciplinary team approach have gradually but effectively increased the resectability rate to 20%-30% of cases with a 5-year survival of 35%-50%.(3)

Nonetheless, distant metastases eventually arise in about 20% of patients who are stage II or III at the time of diagnosis (3). About 35% of all patients already have distant metastases when the diagnosis is made. Patients with untreated hepatic metastases have a very poor prognosis. In a prospective, observational study carried out on 484 patients from 1980 to 1990, the median time to death was 6.9 months (4). Adson and colleagues, in the 1970's, were the first to show that patients could be cured by the resection of hepatic metastases (5). Since then, resection has become established as a standard treatment. For this review, we selectively searched the literature for articles containing the words "colorectal liver metastases," "chemotherapy," and "surgery," paying special attention to studies carried out on larger groups of patients and to randomized clinical trials.(6)

Most favorable outcomes were observed in patients with pedicle lymph node involvement (5-year survival rate 25 vs 0% for patients with celiac and/ or para-aortic lymph node metastases), and in patients younger than 40 years (5-year survival rate 45% vs 10% for older patients).(7,8) In relation to our results and those reported by others, we recommend combining hepatectomy with lymphadenectomy only for young CLM patients presenting with pedicle lymph node involvement, in the absence of disease progression after preoperative chemotherapy. On the other hand, patients presenting with celiac or para-aortic lymph node involvement should not be subjected to this oncosurgical treatment strategy. Even concomitant pulmonary metastases should not be considered a contraindication to surgery. Patients with only pulmonary metastases as a site of extrahepatic disease have a particularly good outcome after complete metastasectomy of both liver and lung disease. Five-year survival rates ranged from 22% to 50% in patients with metastases limited to the lungs.(8) Also, selected patients with complex multiorgan metastases have been associated with prolonged survival after a multimodality treatment. Patients with simultaneous hepatic and extrahepatic disease (EHD) do, however, need to be selected for surgery. Elias et al stated that EHD, when resectable, is no longer a contraindication to hepatectomy.(18) More importantly, the total number of metastases, whatever their location, has a strong prognostic effect than the site of the metastases. In addition, a study conducted at our centre demonstrated that patients with concomitant EHD who were resected experienced a lower 5-year survival than those without EHD (28% vs 55%, $P<.001$). Five poor prognostic factors were identified with multivariate analysis: EHD location other than lung metastases, EHD concomitant to colorectal liver metastases recurrence, CEA-level>10 ng/ml, >6 colorectal liver metastases and right colon cancer. The five-year survival ranged from 64% (0 factors) to 0% (>3factors).(19)

ADJUVANT TREATMENT IN COLORECTAL CANCER

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Worldwide, more than 1 million people develop colorectal cancer (CRC) annually (1). CRC is a major health problem in the Western world and the second most common cause of cancer mortality (2). To improve performance, the role of chemotherapy for CRC has increased dramatically over the last decade. Of course urgery remains the cornerstone of treatment, the vast majority of CRC patients now receive chemotherapy with multiple agents that are currently approved for the treatment in the appropriate setting.However, it is a complex process to select the optimal chemotherapy for each patient and practice evidence gap is still a problem. We found large differences in patterns of institution, region and country. The results suggest that the lack of evidence for CRC chemotherapy practice still exists in the world.(3) Recently, standardization of cancer treatment, including chemotherapy, has become of particular importance for the quality of cancer therapy. It is important to know whether the overhaul performed normalization of CRC chemotherapy. Measures and quality indicators are needed and several studies on indicators of quality of cancer care have been reported. However, measures to assess the standardization of cancer therapy are not well established. In this study, we evaluated the usefulness of the oncology market research to assess the evidence gap in practice CRC chemotherapy. We also discuss the role of the method to measure the effect of normalization of CRC chemotherapy.(4,5)

Although surgery remains the cornerstone of treatment, the vast majority of CRC patients now receive chemotherapy to reduce the risk of metastatic spread by eradicating microscopic tumor foci that are distant from the primary tumor and undetectable in Perioperative assessment of tumor extension. 5 - rate five-year survival of patients are mainly determined by the histological stage of the tumor at the time of resection.The most important prognostic factor for survival in patients without visceral metastases is the stage of the tumor determined by the depth of penetration of the tumor in the bowel wall and the number of (4) lymph nodes (lymph nodes <12 examined).Result of the meta - analysis of over 10 studies showed that each - two-month delay of adjuvant chemotherapy resulted in a 14% decrease in overall survival, suggesting that adjuvant chemotherapy should be administered as soon as possible (5) .

The introduction of new cytotoxic agents such as oral fluoropyrimidines, oxaliplatin and irinotecan in chemotherapy (CT) regimens have improved the response rate, disease-free survival (DFS) and overall survival (OS) in patients with metastatic colorectal cancer. (6,7) This has encouraged their trials in the adjuvant treatment of non-metastatic disease, especially in patients with stage III tumors. Table 1 shows the most common regimens used for the CT adjuvant. Surgery alone is usually curative for colon cancer stage II, but about 20% to 30% of these patients develop recurrence and die of metastatic disease. (8) This underpins the need for prognostic factors such as microsatellite instability (MSI), which are potentially predictive of tumor response to cytotoxic agents. (7) .Prognostic factors are particularly useful in the context of phase II colorectal cancer, where the benefits of cytotoxic adjuvant therapy are more controversial than in stage III disease. The identification of accurate and validated predictive and prognostic markers help clinicians in choosing appropriate use of adjuvant chemotherapy in patients with stage II CRC.

MSI is a change in the length of microsatellite DNA due to the insertion or deletion of repeating units - from1to 5 nucleotides caused by defects in mismatch repair genes or methylation of their promoters. (9) Tumors with MSI are more often proximal, poorly differentiated, mucinous, and show a significant lymphocytic infiltration. (9)

Original Paper

Intraoperative Sentinel Lymph Node Mapping in Patients with Colorectal Cancer

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ABSTRACT
Background/Aims: In about 1/3 of the patients with colorectal cancer without metastases which have been radically operated recurrences are observed and these patients die from cancer. This requires improvement of the surgical methods radicality as well as a more accurate determination of the indications for adjuvant chemotherapy administration. The introduction of a method for evaluating the degree of the metastases in colorectal cancer would highlight these issues. To this purpose we apply the method of sentinel mapping.
Methodology: For a period of one year we performed intraoperative sentinel mapping on 103 patients who had been operated for colon or rectal cancer. We used the dying method with Patent Blue V. An algorithm was worked out for sentinel mapping in colorectal cancer.
Results: We achieved 100% performance success and 97% sensitivity. We increased the volume of the surgical intervention in 100% of the patients and elevated the clinical stage of 20% of the patients in I[st] and IInd stage by means of ultrastaging with immunohistochemistry.
Conclusions: We conclude that sentinel lymph nodes mapping in colorectal cancer is a diagnostic method which is convenient for the surgeons allowing them for an individualized approach toward each patient.

KEYWORDS:
Colorectal cancer, Sentinel lymph node, Staging, Intraoperative dye mapping, Upstaging

ABBREVIATIONS:
Sentinel Lymph Node (SLN); Colorectal Cancer (CRC); Micrometastases (MM); Lymph Nodes (LN)

INTRODUCTION

A sentinel lymph node (SLN) is defined as the first lymph node/nodes receiving direct drainage from the tumor (1-7,9-19,21-27,40,42,43,45) and consequently possessing the greatest metastatic potential. (8-17,20, 26,27,40,42,43,45)

Sentinel mapping in colorectal cancer (CRC) is related to two questions that are important for the surgeon:

1. Is the extending of the lymph dissection necessary in certain patients and which are these patients?
2. Is the staging of the disease correct?

The most important factor affecting the outcomes of the surgical treatment and the survival rate is the presence of metastases. (10-13,21,28-38, 40,43,45-48, 56,57,58) The presence of lymph metastases places the patients from stages I and II to stage III which significantly deteriorates the prognosis and the survival rate (TNM). (10,12,21,36,39,59) The atypical lymph-drainage occurs in about 8-14% of the patients. (1,9,10,21,41,44,45) The failure to detect it is one of the reasons for the recurrences due to the incorrect staging and adjuvant therapy administration. (22,45,85) It results from specific anatomical features or lymph flow.

The atypical lymph metastases are observed:

- in terms of the localization level of the metastatic lymph nodes (jumping or "skip" metastases)
- in affecting the atypical lymph basin (aberrant lymph drainage) for the given localization of the primary tumor.

In CRC the size of the resection and the lymph dissection are determined by the tumor localization and they have been standardized to a great extent. (96)

The metastatic lymph nodes in the presence of aberrant lymph drainage can be found beyond the limits of the standard lymph dissection size. In these cases the radicality of the surgery requires the extension of the lymph dissection size. (22,67,73) It is important to apply a method for lymph metastases detection. The possibilities of the intraoperative examination and palpation as well as the existing methods for imaging diagnostics of the lymph basin in CRC are not sufficiently reliable. Their sensitivity varies between 20% and 50%, the lymph nodes are detected with the size over 5mm, the metastatic potential being determined based on the increased size. (74) According to literary data 50 – 78% of the metastatic lymph nodes are sized under 5mm. (1,93,97,98)

This is a reason for the unsatisfactory possibilities of the preoperative and intraoperative diagnostics of the lymph metastases. Lymph mapping with dye visualizes the lymph vessels and the sentinel LN very well in the surgical field even if they are very small in size less than 5mm and are otherwise undetectable. (1,93,97,98)

The direct tumor drainage in the SLN is demonstrated by means of blue stained lymph vessel linking the tumor to the SLN when marked with dye.

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NEW TRENDS IN RECTAL CANCER SURGERY CASE OF THE PRACTICE

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BACKGROUND: Sphincter preservation, disease control, and long term survival are the main goals in the treatment of rectal cancer. Although transanal local excision is attractive because it is a sphincter sparing procedure, some contradictory data exist in the literature about its ability to locally control disease and provide overall survival comparable with radical procedures, even for patients with early stage tumor. In patients with early rectal cancer (T1), local excision may be an alternative approach in highly selected patients. For more advanced rectal cancer, radical surgical resection is the treatment of choice. METHODS: We reviewed the literature to identify the current recurrence and survival rates of both techniques as well as the salvage surgery success, only 1 study was prospective, 5 were comparative, and 5 were case reports. We present a case report of a woman with local excision of rectal tumor. Five years later a rectal recurrence has showed up. We describe the case and make some conclusions.

INTRODUCTION: Local excision of rectal neoplasms is well described as an alternative to abdominoperineal resection (APR) and anterior resection in selected patients, with fewer postoperative complications and operative mortality.1 Historically, local excision has included transanal,2 transsacral,3 and transsphincteric4 approaches. The transanal approachis a minimally invasive technique that allows greater exposure and facility in the management of proximal disease than traditional local excision, with a shorter operative time and less morbidity than the radical surgical procedures. 5We found such data in the literature and sometimes provide this kind of treatment to our patients. But what we do indeed – curative treatment or trying to avoid postoperative morbidity? According to the TNM staging system, the most valuable prognostic factor is the clinical stage (from I to IV). It has direct correlation with the presence or absence of local or distant metastases. Lymph node metastasis has been reported in 3% to 17% of T1 cancers6-10 and is found in 52% of tumors <5 cm.10 Features that increase the risk of lymph node metastasis include poor differentiation, vascular invasion, and depth of invasion.11 Low-risk T1 lesions (well or moderately well differentiated and without lymphatic invasion) carry a 5% risk of lymph node metastasis, compared with [illegible]% for highrisk lesions.12 A study report for 15% recurrence rate for locally resected adenomas 13 We present a case of our practice with anamnesis for local excision of rectal cancer (pT1NxMx) in the past, 5 years ago. On clinical examination, during routine followup procedure she was found to have a mass in the retrorectal region which was palpable on rectal examination. MR tomography revealed the presence of adjacent lobulated soft-tissue mass in the perirectal fat adjacent to the coccyx posteriorly After making preoperative considerations, the patient was operated on. Initially, trans-sacral approach York-Masson was applied. Due to volume of the sacral resection, the coccigeal bone and the two distal vertebras of the sacrum were removed. Biopsy and expressed intraoperative morphological evaluation confirm the recurrent nature of the tumor mass. It was made a decision to converse the approach via laparotomy and R-0 low anterior resection of the rectum with hand-sewn anastomosis was made.

COMPARATIVE ANALYSIS OF COLON CANCER VS. RECTAL CANCER IN SENTINEL LYMPH NODE MAPPING

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Introduction: The lymphatic status is acknowledged as the most important prognostic factor in patients with colorectal cancer. In our clinic, the intraoperative sentinel lymph node mapping with Patent Blue V is a routine method of choice for better staging of lymph node status and achieving an adequate extent of surgical procedure in patients with colorectal cancer. **Aim:** To compare the results from application of methods of intraoperative sentinel lymph node mapping in patients with colon cancer vs patients with rectal cancer. **Results:** There were 136 consecutive patients (65 with colon and 71 with rectum). The sentinel lymph nodes were identified in 100 percent of colon and rectal patients. Skip metastases were found in 3.0 percent of colon vs. 2.81 percent of rectal patients. Occult micrometastases were found in 9 percent of colon vs. 7.0 percent of rectal patients. No other parameters were statistically different between colon and rectum. The study was undergone in 136 patients with diagnosis of colorectal cancer and sentinel lymph node mapping. An analysis and comparison is done and the results of the two methods were compared. Our data show that the sensitivity is comparable and is respectively 100% and 95%, respectively for the colon and rectum, the methods are reliable enough. **Conclusion:** The surgical approach and the extent of the lymph dissection have to be conformable to the status of lymph node basin, staged with the help of objective intraoperative diagnostic tool, such as intraoperative sentinel lymph node mapping. This leads to increasing level of curative surgical treatment in cases of colorectal cancer. Despite higher success rates in sentinel lymph node identification for colon patients, sentinel lymph node mapping was highly successful (91.5 percent) in rectal patients. Nodal upstaging, skip metastases, and occult metastases were analysed.

Keywords: Sentinel lymph node mapping, colon and rectum, caner

GASTRIC CANCER

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ADRENAL TUMORS AND CUSHING'S SYNDROME– OUR SURGICAL EXPIRIENCE

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Introduction: Cushing's syndrome is a clinical condition of excess cortisol production secondary to disorders of the pituitary, adrenal glands, or ectopic production of adreno-corticotrophic hormone (ACTH). The syndrome is manifested by obesity, hypertension, diabetes, amenorrhea, and other symptoms and without recognition and proper treatment can result in substantial morbidity and mortality.

Material: We present an evaluation of 18 patients, operated in Clinic of general and operative surgery in the period of 1999-2008. All of them had tumors of the suprarenal glands.

Discussion: All patients were contacted by telephone and asked to describe any chronic symptoms relating to the procedure. The responses from a similar telephone interview of the patients who had undergone operations were distinctly different. However, many patients are relatively young at the time of treatment (the mean age in this series was younger than 40 years of age) and will return to full and productive lives after surgery. The data presented here show that the majority of patients who undergo bilateral adrenalectomy will have long-term incisional pain, which can be severe and incapacitating in some.

УСПЕШНА КОМУНИКАЦИЯ В ХИРУРГИЧЕСКИ ЕКСПЛАНТАЦИОНЕН ЕКИП

Н. Колев, А. Тонев, Иванов К, В. Иванов,
Н. Митев, В. Игнатов, Щ. Щерев

Общуването е дейност, която включва акта на пренос на информация от източника към получателя. В перфектната комуникационна система и двете страни трябва да имат еднакви познания. Всички възможни съобщения са известни предварително. Източникът прави избор за съответното съобщение от набор с възможни такива. Получателят трябва да разпознае какво е избрал изпращачът.

УПРАВЛЕНИЕ НА ГРЕШКИТЕ В ХИРУРГИЧНИЯ ЕКСПЛАНТАЦИОНЕН ЕКИП

Н. Колев, А. Тонев, Иванов К, В. Иванов, Н. Митев, В. Игнатов, Щ. Щерев

Управлението на грешките в ХЕЕ може да бъде приложено при дефинирани като неуспех в изпълнението на предварително предвидени действия- изпълнителна грешка, или в употребата на грешна стратегия за постигане на желан изход- стратегическа грешка. Неблагоприятно събитие е всяко което не е очаквано или желано, не е нормално или изполזваемо от организацията. Нормално такива събития трябва задължително да бъдат изследвани и документирани. Такива събития още се наричат сентинелни и изискват незабавна обратна връзка.

СИНДРОМ НА OGILVIE (ПСЕВДО-ОБСТРУКЦИЯ НА КОЛОНА)
КЛИНИКО-ПАТОЛОГИЧНИ ХАРАКТЕРИСТИКИ И СЛУЧАЙ ОТ ПРАКТИКАТА

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Абстракт:

Синдрома на Огилви или острата дебелочревна псевдообструкция е състояние с клинична картина и образни данни за наличие на остра идиопатична дебелочревна обструкция, при което не се доказва причина за непроходимостта. Друго название на това заболяване е остър нетоксичен мегаколон. Дебелото черво може да дилатира значително ако не се декомпресира, като рискът от перфорация, перитонит и смърт е значителен. Острото състояние трябва да бъде разпознато веднага и третирано адекватно. Консервативната тактика включва назогастричен дренаж, ресусцитация на хомеостазните нарушения и стимулация на дебелочревната моторика. Агресивното поведение включва оперативно лечение или колоноскопска декомпресия. Някои автори съобщават за значително увеличаване в честотата на случаите в следоперативния период на някои коремни заболявания. Това им дава основание да считат синдрома на Ogilvie като постоперативно заболяване. Докладваме случай от практиката на опериран болен с остра чревна псевдо-обструкция, придружен от дебелочревна остра исхемия с некроза.

Ключови думи: Синдром на Огилви, хирургично лечение

Abstract:

Ogilvie syndrome, or acute colonic pseudo-obstruction (ACPO), is a clinical disorder with the signs, symptoms, and radiographic appearance of an acute large bowel obstruction with no evidence of distal colonic obstruction. The other name of this disease is an acute non-toxic megacolon. The colon may become massively dilated; if not decompressed, the patient risks perforation, peritonitis, and death. The acute state has to be discerned immediatelly and treated adequately. The conservative tactics includes naso-gastric drainage, resustitation the homeostasis and stimulation the colonic peristalsis. The aggressive behavior includes an operative treatment or colonoscopic decompression. Some authors report for considerable rising in the frequency of the cases in postoperative period in some abdominal diseases. That's why they think that Ogilvie syndrome is a postoperative disease. We present a case of the practice – an operated man with acute colonic pseudo – obstruction (ACPO) involving acute colonic ischaemia with necrosis.

Keywords: Syndrome of Ogilivie, surgical treatment

СЪВРЕМЕНЕН ПОДХОД ПРИ IV СТАДИЙ НА КОЛОРЕКТАЛЕН РАК – ПОГЛЕДА НА ХИРУРГА.

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Резюме:

Колоректалният рак е третият най-често срещан рак на Запад (Европа и САЩ)_и втори по честота на изток (Япония). Чернодробни метастази развиват 50% от болните с колоректален рак и са причина за смърт при 2/3 от тях. Съвременните периоперативни грижи и хирургични техники значително подобряват сигурността при извършване на чернодробна хирургия, като смъртността за оперираните в третични болнични центрове (университетски болници) е между 1%-5%. Времената се променят, а с тях се сменят и терапевтичните стратегии. Съвременната стратегия за превръщане на нерезектабилните метастази в резектабилни след провеждане на химиотерапия прави прелом в поведението спрямо метастазите от колоректален рак. Пет-годишната преживяемост след чернодробна резекция е между 25%-58%, сравнено с 0%-5% при неоперирани пациенти. Днес палиативната резекция при нерезектабилен метастатичен колоректален рак не носи ползи по отношение на преживяемостта. Хирургичната експлорация при тези пациенти е свързана с неприемливо висока честота на следоперативни усложнения. Лимитиращия живота фактор при тези болни е метастатичната болест. Удълженото следоперативно възстановяване при палиативните операции забавя започването на лечението насочено към метастатичната болест, като понякога го прави невъзможно. Хирургичното лечение на безсимптомния метастатичен колоректален рак е въпрос на дискусия. Не съществуват универсални стандарти за поведение при болни в IV стадий колоректален рак.
Ключови думи: IV стадий колоректален рак; чернодробни метастастази, чернодробни резекции

Abstract
Introduction
In the past decades the improvement of surgical technologies and modern adjuvant therapy lead to revolutionary changes in multimodal approach in treatment of liver metastatic lesions from colorectal cancer. The achieved results are encouraging and the surgeons receive the opportunity for individual approach to every patient for maximizing the outcome. "Which approach is suitable for which patient?" is already not a disputable question. The classic surgical approach is consist of surgical treatment of the primary tumor at first place and after that treatment of liver metastases is commenced. Despite of that in many patients the metastatic process progresses and obstructs the sanitation of the primary lesion. Upon this some authors create strategy, which includes as first step powerful neoadjuvant chemotherapy, as second step is commenced resection of the metastases and as last level – resection of the primary tumor. According to some authors this inverted "approach" in the treatment of colorectal cancer leads to better results in respectability and survival rate. This approach is indicated in patients with non-obstructive tumors. In the basis of this "inverted approach" stays the opinion that the patient dies from the complications, connected with metastatic disease.
Conclusion: The treatment of liver metastases from colorectal cancer is a dynamic and continuing process. The multimodal approach allows building individual strategy in the treatment every single patient.
Keywords: IV stage colorectal cancer, liver metastases, liver resections

ЛАПАРОСКОПСКА ИНТЕРСФИНКТЕРНА РЕЗЕКЦИЯ

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ВЪВЕДЕНИЕ: Исторически радикалната резекция за карцином на дисталния ректум се свързва с извършването на абдомино-перинеална резекция. Въвеждането на по-близки до тумора дистални резекционни граници, прилагането на неоадювантната терапия и интер-сфинктерната резекция прави възможно извършването на сфинктеро-запазващи операции при болни с ниски ректални тумори. През последното деситилетие, започна да се прилага по-широко метода на интерсфинктерната резекция, целящ едновремено сфинктеро-съхраняване и некомпрометиране на онкологичната радикалност. Създадени са стандарти за приложение на метода, като са уточнени неговите индикации и контраиндикации. Отворен остава въпросът дали увеличения дял на интерсфинктерните резекции ще доведе до: 1- намаляване процента на АПР или 2- намаляване процента на предните резекции. С широкото налагане тоталната мезоректална ексцизия (TME) [1], концепцията на спесимен ориентирана хиругия доведе до подобряване на резулатите от оперативното лечение на ректалния рак. [2]. Техническите постижения в областта на хирургичния инструментариум доведе до промени във височната на резекция. [3] Необходимото отстояние може да бъде намалено до 1 см от тумора.[4] Вследствие на това проблеми като качеството на живот и сексуалната активност излязоха на преден план, като наличието или отсъствието на дефинитивна колостома се определя като основен фактор, влияещ върху качеството на живот според повечето автори[5]. Честотата на абдомено-перинеална резекция се идентифицира като независим маркер за качество на живот след оперативно лечение на болни с нисък рак на ректума.[6] Развитието на методите за ресторативна хирургия при рак на ректума с ексцизия на част или целия сфинктерен апарат, първоначално приложени при болни с възпалителни заболявания на червата, [7] и реконструкцията чрез ръчна коло-анална анстомоза разширяват индикациите за прилагане на резекции със запазване нормалния път на дефекация. От друга страна прилагането на мини-инвазивни, лапароскопски методи методи при оперативно лечение на коло-ректален рак подобрява следоперативното възстановяване без да компрометира функционалните и онкологични резултати, като това е доказано в голямо количество проучвания, публикувани през последните 5 години.[54] Създадени са стандарти за приложение на метода като са уточнени неговите индикации и контраиндикации. Отворен остава въпросът дали увеличения дял на интерсфинктерните резекции ще доведе до: 1- намаляване процента на АПР или 2- намаляване процента на предните резекции. Резулатите на редица автори показват сигурност и надеждност при прилагането на лапароскопска резекция и лапароскопска екстирпация. Комбинирането на двата подхода – интерсфинтерна резекция със мини-инвазивен, лапароскопски подход би довело до намаляване на процентното съотношение на АПР с по-бързо възстановяне на болните в следоперативният период. [55]

Поставихме си за цел да установим какви доказателства за приложимостта на метода на интер-сфинктерна резекция. Предлагаме комбинирането му с лапароскопски достъп, като докладваме нашия опит.

МЕТОД: В достъпната литератури намерихме сигурни доказателства за Приложеният от нас метод на лапароскопска ИСР добавя миниинвазивност към всички положителни качества на конвенционалната ИСР.

Индикации: Основна индикация за прилагане на метода на ИСР при радикално лечение на нисък рак на ректума е намирането на баланса между онкологичните и фун-

МУЛТИМОДАЛЕН ПОДХОД ПРИ IV СТАДИЙ НА КОЛОРЕКТАЛЕН РАК - ПОГЛЕДА НА ХИРУРГА.

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Въведение: В последните години подобрената на хирургична техника и модерна адювантна терапия доведе до революционни пормени в мултимодалния подход за лечението на болни в IV стадий колоректален рак. Постигнатите резултати са окуражаващи и хирурзите получават възможността за индивидуален подход спрямо всеки пациент за подобряване на резултатите. „Кое е най-доброто за този пациент" вече не въпрос без отговор. Класическият подход се състои от хирургично лечение на първичния тумор на първо място и последващо лечение на метастазите. Въпреки това в много случаи метастични процес прогресира и затруднява санирането на първичната лезия. Във връзка с това някои автори създават стратегия, която включва като първа стъпка агресивна неоадювантна химиотерапия, като втора стъпка се обсъжда резекция на метастазите и на последно място резекция на първичния тумор. Според някои автори тази конверсия в стратегията на лечение на IV стадий колоректален рак води до по-добри резултати по отношение на резектабилност и преживяемост. Този подход е показан при пациенти с необструктивни чревни тумори. На основата на „обратния подход" се изгражда мнението, че танатогенезата е свързана в по-голяма степен с усложненията на метастатичната болест от колкото с усложненията на първичния тумор.

Заключение: Лечението на IV стадий колоректален рак е динамичен процес. Мултимодалният подход включва създаването на индивидуална стратегия за всеки отделен пациент.

УВОД

Колоректалният рак е третият най-често срещан рак на Запад (Европа и САЩ) и втори по честота на Изток (Япония) (*1, 2*). Чернодробни метастази развиват 50% от болните с колоректален рак и са причина за смърт при 2/3 от тях (*3*). Начало на модерната ера на чернодробната резекционна хирургия поставят Lortad-Jacob през 1952г. с публикациите си върху анатомичните хепатектомии. Резултатите са били далеч от окуражаващи.

Първото мултицентрово проучване върху достатъчно голям брой пациенти е на Foster и Berman през 1977г. включващо 621 чернодробни резекции. Съвременните периоперативни грижи и хирургични техники значително подобряват сигурността при извършване на чернодробна хирургия, като смъртността за оперираните в университетски болници е между 1%-5%. Времената се променят, а с тях се сменят и терапевтичните стратегии. Съвременната стратегия за превръщане на нерезектабилните метастази в резектабилни след провеждане на химиотерапия прави прелом в поведението спрямо метастазите от колоректален рак.

Пет-годишната преживяемост след чернодробна резекция е между 25%-58%, сравнено с 0%-5% при неоперирани пациенти (*4,5,6*).

Таблица 1.

Автор	Година на публикуване	Години включени в проучването	Петгодишна преживяемост
Huges	1988	1948-1985	24%
Choti	2002	1993-1999	58%
Tanaka	2008	1990-2006	45.7%

РЕЗЕКЦИОННА ХИРУРГИЯ НА ЧЕРЕН ДРОБ ПРИ МЕТАСТАЗИ ОТ КОЛОРЕКТАЛЕН РАК – ЕДНОГОДИШЕН ОПИТ

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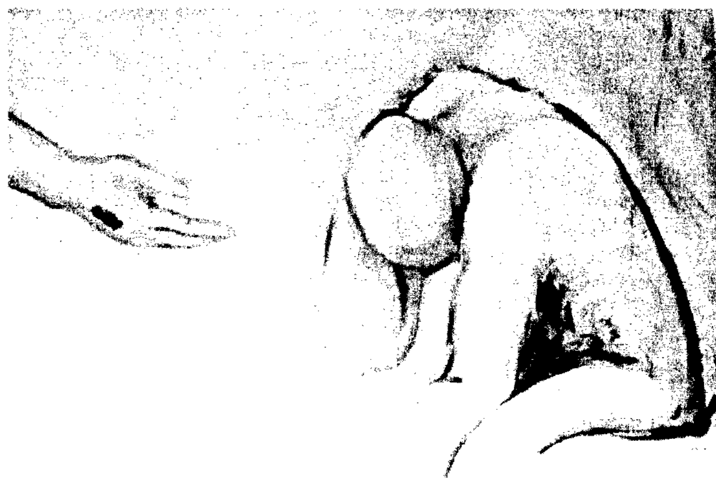
ВЪВЕДЕНИЕ

Първият въпрос, който е уместно да се зададе при установяването на чернодробни метастази е: „Наличието на чернодробни метастази означава ли късно поставена диагноза?”



фиг. 1

Каква е ролята на хирурга в тази ситуация? – без намесата на хирурга пациентът вероятно е обречен.

Екипът

Колоректалният рак е третият най-често срещан рак на Запад (Европа и САЩ) и втори по честота на Изток (Япония) (*1,2*). Чернодробни метастази развиват 50% от болните с колоректален рак и са причина за смърт при 2/3 от тях (*3*)

Начало на модерната ера на чернодробната резекционна хирургия поставя Lortad-Jacob през 1952г. с публикациите си върху анатомичните хепатектомии. Резултатите са били далеч от окуражаващи.

ОПЕРАТИВНО ЛЕЧЕНИЕ НА НАДБЪБРЕЧНИ ТУМОРИ – ЕДНОГОДИШЕН ОПИТ

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ВЪВЕДЕНИЕ: С напредването на технологиите, вариантите за хирургична намеса при надбъбречни тумори стават все по разнообразни. За избора на най-подходящата операция, при всеки отделен болен са важни диагнозата на тумора, специфичните фактори на пациента, както и правилна оценка на критерия полза/вреда.(1) В практиката се прилагат предни или задни конвенционални, трансабдоминални или ретроперитонеални – лапароскопски, торако-абдоминални, както и парциални адреналектомии. Хирургичното лечение остава единственото възможно радикално за хормонално-активните аденоми, и като правило за малигнените състояния. След първата извършена лапароскопска адреналектомия (ЛА) от Gagner през 1992г., тази процедура се превръща в златен стандарт при болни с доброкачествени неоплазми.(2-4) Приложението и при малигнени състояния все още е обект на изследване, със резултати подкрепящи разширяването на индикациите за ЛА.(5,6) Съществуват различни оперативни модификации на метода, като найчесто се срещат съобщения транс-перитонеален и ретроперитонеален подход.(7,8) Мини-инвазивните техники предлагат удобството на скъсения период на възстановяване и намалени усложнения, докато традиционната конвенционална хирургия остава златен стандарт при случаите на аденокарцинома. (2-4,6) Ние представяме опита на Първа клиника по Хирургия на УМБАЛ „Св. Марина" като съобщаваме нашите резултати от приложението на ЛА и сравняваме ретроспективно данните от прилагането на отворен достъп. Някой автори съобщават големината на тумора (при тумори > от 6 см) като контра индикация за мини-инвазивен достъп поради технически трудности, повишен риск за малигнитет и последваща дисиминация, но при някои нови студии тези критериисе коментират само в релативен контекст.

МАТЕРИАЛ И МЕТОДИ: За периода 2004-2009 са оперирани 24 болни с образни данни за туморни формации, засягащи надбъбречна жлеза. Разпределението по пол бе 14 мъже и 10 жени на възраст от 27 до 76 години. Десет от тях са оперирани посредством отворен достъп, предимно през първата половина на периода (2004-2006). Четиринадесет болни са оперирани чрез транс-перитонеална лапароскопска адреналектомия. Трима болни бяха с двустранна локализация (MEN 2А-синдром). Алгоритъмът за диагностика и предоперативна подготовка включваше - анамнеза за резистентна на медикаментозно лечение АХ, плазмен кортизол и серумен АКТХ, образни изследвания на НБЖ(КАТ, ЯМР, ПЕТ/КТ)., цитогенетични изследвания за МЕН-2-А при двустранните локализации. Оперативната намеса бе индицирана при остановяване на малки или хормонално не-активни тумори, Синдорм на Conn, Синдром на Cushing, хормонално активни аденоми, феохромоцитоми, инциденталоми, с размери > 3. Като контраиндикации за прилагането на лапароскопски достъп бяха изпозлвани предходни оперативни намеси в горен коремен етаж поради риска от адхезии, оперативни намеси върху бъбрек и черен дроб, големи тумори - > 8 см. Напредналата възраст, повишеният BMI, сърдечната и белодробна дисфункция, до скоро абсолютни контра-индикации за лапароскопски достъпи, все по-често се докладват като индикации за мини-инвазивни операции поради повишените възможности на реанимация и ползите от намаленият травматизъм.

Лапароскопският метод включваше поставяне на болния в положение Jack-knife, в съответствие с локализацията на засегнатият надбъбрек. (фиг 1.) След постигане на пневмоперитонеум и извършване на експлоративна лапаросокопия се поставяха 4 порта

20 ГОДИШЕН ОПИТ В ЕНДОСКОПСКИТЕ МАНИПУЛАЦИИ ПРИ ХИРУРГИЧНО БОЛНИ

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ВЪВЕДЕНИЕ: Ендоскопските методи са незаменими при третирането на хирургичните заболявания. Те дават уникална информация по отношение на функцията, анатомичните особености и патологичните промени на органите на гастро-интестиналния тракт. Наличието на ендоскопско звено, функциониращо в тясна колаборация с хирургичната клиника създава „задължителни" условия за изпълнение на съвремените стандарти при поставяне на диагноза и лечението на заболяванията на ГИТ. В съвремената медицина все повече хирургични заболявания се лекуват успешно по миниинвазивен или неоперативен път. Съществува самостоятелен раздел в медицинската наука, изучаващ възможностите за ендоскопско лечение на заболяванията и в частност хирургичните заболявание на ГИТ. При много от тях ендоскопската манипулация постига траен терапевтичен ефект и заменя нуждата от оперативна интервенция, в други случая ендоскопската манипулация служи като bridging-процедура, което прави възможно осъществяването на една по-комплексна и радикална хирургична процедура на следващ етап и в много случаи предотвратяваща извършването на палиативна операция с лоши резултати. Съвремният хирург е необходимо да бъде в тясна колаборация с ендоскописта и самия той да бъде подробно запознат с ендоскопските процедури и техните възможности, както и техните усложнения. Това позволява на хирурга да изпозва максимално „ползите" от ендоскопските методи. Липста на доверие и унифицирано мислене между хирурга и ендоскописта води до диагностична неяснота и неразбиране от страна на хирурга, което изключително минимизира информативната стойност на предоперативното ендоскопско изследване. Добрата колаборация между хирурга и ендоскописта еволюира в едно следващо ниво даващо възможност за извършване на интраоперативна ендоскопия. Ендоскопския контрол при болни след оперативна интервенция е ефективен, когато в него участва хирурга. Пожеланието да се случи всичко това може да се осъществи в понятието хирург-ендоскопист. В нашата клинка работят 4 хирурзи-ендоскописти. Те работят в тясна колаборация с гастро-ентеролози ендоскописти и вътрешните клиники на болницата, като болните нуждаещи се от лечение в хирургична клиника, както и болни с хирургични проблеми, лежащи в други нехирургични клиники на болницата се изследват и лекуват от хирурзи-ендоскописти. Създадени са дългогодишни алгоритми за поведение спрямо болни с хирургични заболявания и синдроми, както планови, така и спешни, които периодично се осъвременяват, съобразно националните консенсусни решения. Наличието на хирурзи-ендоскописти позволява в клиниката да се поддържа високо ниво на теоритична подготовка по въпроси, касаещи ендоскопско третиране на хирургично болни.

МАТЕРИАЛ И МЕТОД: В I-ва Клиника по Хиругия на Университетска Болница „Св. Марина" – Варна, за 20 годишен период са преминали на 18 021 хирургично болни на които са били извършени ендоскопски манипулации.

При 9215 е била извършена горна ендоскопия и 8806 болни - долна ендоскопия.

Извършени са 4323 инвазивни терапевтични процедури на ГИТ. При 1548 болни с остро неварикозно кървене от ГИТ, окончателна ендоскопска хемостаза е постигната при 1406 болни (91%) посредством методите на лазерна фотокоагулация, електрокоагулация, инжектор и аргон-плазмена коагулация, както и поставяне на ендоскопски клипове.

Извършени са 843 терапевтични апликации при варикозно кървене от езофагеални и кардиални варици и при хемороидални възли, с успешно кръвоспиране при 752 бол-

POSTOPERATIVE VOMITING IN PATIENTS AFTER LAPAROSCOPIC SURGERY

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ABSTRACT

Background: Postoperative nausea and vomiting (PONV) is common after anaesthesia and surgery. We decided to evaluate metoclopramide, dexamethasone, and their combination in preventing PONV in patients undergoing laparoscopic surgery.

Method: 396 patients were studied. Four groups were created: group 1 received metoclopramide postoperatively; group 2 received dexamethasone following anaesthesia; and group 3 received dexamethasone following anaesthesia and metoclopramide before end of anaesthesia. Results were compared to group without anti-emetic. PONV incidence, basal and active mean visual analogue pain scores, time to first analgesia request, side effects, and well-being score were recorded at first 24 h postoperatively.

Results: Literature total incidence of PONV was 60% in control group devoid of anti-emetic but 45% of PONV was seen in Group 1 with metoclopramide, Group 2 -23% with dexamethasone, and Group 3 - 12% with the combination of dexamethasone and metoclopramide. Anti-emetic rescue was not required in dexamethasone plus metoclopramide group or group with only dexamethasone, compared with four patients in the metoclopramide group and six patients in the control group.

Conclusion: Dexamethasone or dexamethasone + metoclopramide combination was more effective in preventing PONV than metoclopramide or lack of anti-emetic.

Key Words: Postoperative nausea, vomiting, laparoscopic surgery

INTRODUCTION

Postoperative nausea and vomiting (PONV) is one of the most common complaints following anaesthesia and surgery (1) Despite improvements in anaesthesia, 20-30% of patients still experience nausea and vomiting after surgery (2,3,4,5). A large clinical trial of postoperative nausea and vomiting showed that 4 mg ondansetron, 4 mg dexamethasone, or 1.25 mg droperidol were effective, and that combinations of these drugs had an additive effect (2). Dexamethasone was recommended as the first line drug, as it is safe and cheap. Data on metoclopramide as an anti-emetic after surgery are contradictory. A meta-analysis found that an intravenous dose of 10 mg had only a marginal effect, (6) but because of its complex mode of action (it binds to dopamine, serotonin, and histamine receptors), metoclopramide remains an interesting drug for preventing postoperative nausea and vomiting (7). Studies have concluded that metoclopramide is ineffective in this context, but the timing of administration and use of larger doses were not investigated fully (8, 9, 10, 11). We investigated the efficacy of metoclopramide, dexamethasone, and their combination in preventing PONV in patients undergoing laparoscopic surgery.

MATERIALS AND METHOD

We screened 460 patients hospitalised in the clinic of intensive care and clinic of general and operative surgery in St. Marina University hospital Varna, Bulgaria, from 2001 to 2006 operated laparoscopically. We included 396 in the study and analysed all of them **(Table 1)** and summarises demographic data and putative risk factors. A data for non-treated patients with anti-emetic therapy was observed by an Internet literature survey using the following keywords: post operative nausea and vomiting (PONV). (12, 13) These results formed a group of patients assigned as control group. The median incidence of PONV reported in the observed literature was 62%. They were surgically treated and no anti-

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VALUE THE FDG-PET/CT ON THE MANAGEMENT OF COLORECTAL CANCER PATIENTS

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ABSTRACT

INTRODUCTION: In patients with colorectal cancer (CRC), preoperative evaluation and staging should focus on techniques that might alter the preoperative or intraoperative surgical plan. Conventional imaging methods (CT, MRI) have low accuracy for identifying the depth of tumour infiltration and have limited ability to detect regional lymph node involvement. The aim of this study was to evaluate the utility of FDG-PET in the initial staging of patients with CC in comparison with conventional staging methods and to determine its impact on therapeutic management. METHODS: In First Clinic of Surgery at University Hospital "St. Marina" one hundred and four patients with a diagnosis of CRC (53 males and 51 females; mean age 66.76± 12.36 years), selected prospectively. All patients were studied for staging using a standard procedure (CT) and FDG-PET. The reference method was histology. The effect of FDG-PET on diagnoses and the operative treatment was studied. RESULTS: In 14 patients, surgery was contraindicated by FDG-PET owing to the extent of disease (only 6/14 suspected by CT). FDG-PET revealed four synchronous tumours. For N staging, both procedures showed a relatively high specificity but a low diagnostic accuracy (PET 56%, CT 60%) and sensitivity (PET 21%, CT 25%). For M assessment, diagnostic accuracy was 92% for FDGPET and 87% for CT. FDG-PET results led to modification of the therapy approach in 17.85% of the patients with rectal cancer and in 14.8% of the patients with colon cancer. CONCLUSION: Compared with conventional techniques, FDGPET appears to be useful in pre-surgical staging of CC, revealing unsuspected disease and impacting on the treatment approach.

Key words: 18F-FDG . Position emission tomography. Colorectal cancer . Staging .

INTRODUCTION

Colorectal cancer is the third most frequently diagnosed malignant tumour and the third most frequent cause of cancer death in Western countries. In Spain, it is the second cause of cancer death in both males (after lung cancer) and females (after breast cancer) and represents 11% of all cancer deaths [1]. The diagnosis of colorectal carcinoma is based on colonoscopy and biopsy. Surgery is the main therapeutic modality for patients with colorectal carcinoma, even in those with metastasis for whom palliative techniques may be beneficial [2]. After initial diagnosis, accurate staging is the next important step in cancer management. Preoperative evaluation and staging should focus on techniques that might preclude surgery entirely, alter the preoperative or intraoperative surgical plan, or indicate the need for preoperative adjuvant therapy [3]. Depth of penetration through the bowel wall, involvement of lymph nodes, and presence of distant organ metastases are prognostic factors in patients with colorectal cancer [2]. Morphological procedures, i.e. computed tomography (CT) and magnetic resonance imaging (MRI), have shown low (although increasing) accuracy for identifying the depth of tumour infiltration within the bowel wall in colon carcinoma and are of limited value in the detection of regional lymph node involvement [2]. Normal-sized lymph nodes may contain tumour, whereas enlarged nodes may merely be reactive. Therefore, for the vast majority of patients with colorectal cancer, a CT or MRI examination is not required for N staging, which is determined according to surgical and pathological criteria. Nevertheless, most patients undergo a preoperative CT examination of the chest, abdomen and pelvis for detection of metastatic disease [2]. In addition to providing important prognostic information, the identification of distant metastases has been shown to benefit both the initial staging and the follow-up of patients with colorectal cancer [4]. Accurate staging that identifies unsuspected metastatic disease assists in optimising patient management by ruling out surgery in some cases and ensuring an adequate surgical approach in others. The benefits of surgical resection and systemic chemotherapy in prolonging the survival of patients with hepatic metastases have been established in recent years. Outcomes of surgery in patients with resectable liver disease show 5-year survival rates of 40%, compared with no survival at 5 years in untreated patients [5, 6]. Current strategies aim to increase the number of candidates for curative hepatic resection. These strategies include the use of preoperative systemic chemotherapy and ablative therapy, which can lead to surgery with curative intent for patients initially thought to

INTRAOPERATIVE ULTRASOUND OF THE LIVER

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RESUME: Intraoperative ultrasound has become an essential tool for the surgeon in the field of hepatobiliary surgery. No preoperative study has been able to duplicate the sensitivity and specificity of intraoperative ultrasound (IOUS) in the identification of occult lesions. With recent improvements in technology, IOUS has now become an indispensable means of defining the extent of disease and respectability, and providing a guide to anatomic and nonanatomic hepatic resections and minimally invasive and percutaneous ablative techniques. The contrast-enhanced intraoperative ultrasound (CE-IOUS) makes IOUS more accurate, thus enhancing the impact of this technique on operative decision-making for liver tumors. The concept of intraoperative ultrasound (IOUS) was first introduced in the mid-1960s and was used primarily in evaluating choledocholithiasis. More advanced applications were not pursued until the early 1980s, secondary to the limitations of ultrasound technology, which involved large bulky transducers and a relatively poor image quality [1]. Presently, IOUS is a mainstay in all oncologic hepatobiliary procedures. Despite all of these technical advances, preoperative detection of preoperative liver lesions remains 60% to 80%. As a reflection of these shortcomings, false negative rates with CT and MRI range from 40% to 70% Table 1 summarizes these findings, the significance of which are demonstrated by several groups citing that in 27% to 49% of cases the operative plan will be changed based on new IOUS findings. These conclusions hold true even in the modern era of advanced preoperative staging. As a result, IOUS has now become a standard part of almost allhepatobiliary cases.

An understanding of normal ultrasound anatomy is essential in performing IOUS because it enables the surgeon to plan segmental resection and define resectability. (Table 1) On rare occasions, the three veins enter the inferior vena cava as a single trunk; more often, the right hepatic vein enters the cava separately while the middle and left form a single trunk or enter separately. Other occasional variants include a separate right superior hepatic vein that drains the upper portion of the liver bound by the coronary ligament, or an accessory inferior right hepatic vein that drains into the cava 2 to 3 cm distal to the hepatic vein confluence. On occasion the portal vein may be ventral to the hepatic artery, duplicated, congenitally absent, or branch intrahepatically.

ULTRASOUND SIGNS OF HEPATIC TUMORS

Tumors are best characterized as being an-, hyper-, or hypoechoic when compared with normal hepatic parenchyma (Table 1).

Table 1

Hypoechoic lesions	Hyperechoic lesions	Anechoic lesions
Hepatocellular carcinoma	Most commonly benign	Biliary cyst
Metastases of extra-abdominal origin	Gastrointestinal metastases	Hydatid cysts
Hyperplastic nodule	Hepatocellular carcinoma	
Regenerative nodule	Hemangioma	
Adenomatous hyperplasia	Fatty metamorphosis	
Small cysts		
Areas without fatty infiltration in a fatty liver		

TECHNICAL ASPECTS OF INTRAOPERATIVE ULTRASOUND

A complete evaluation of the liver can be performed through most incisions and with minimal mobilization of the liver. There are a variety of IOUS systems available. It is also possible to use standard transabdominal equipment, but it has limitations in resolution, the near field of view, and the bulkiness of the probe [1]. IOUS is best performed using a real-time B-mode electronic scanner system with a 5-MHz or 7.5-MHz side-fire T-shaped linear array probe or a convex-array end-fire probe. Either probe can be cradled in the palm of the hand and directly applied to the surface of the liver without gel or acoustic coupling agent. The convex probe reaches all areas of the liver even if full mobilization has not been performed, and allows greater visualization of the deep liver as compared with the linear array. Regardless of the type of system used, a methodical, systematic approach must be used in all cases. The use of overlapping fields is essential to assess completely the entire liver. We scan the liver with overlapping fields from the dome to the caudal edge, proceeding from left to right through the entire organ in a sequential manner. Scanning at a frequency of 5 MHz allows a depth of penetration of up to 10 to 12 cm, while the 7.5-MHz probe provides a shallower depth of penetration. For deeper lesions, the probe can be placed on the posterior surface of the liver. During the entire survey, the transducer is palmed in the hand of the surgeon such that it never loses contact with the surface of the liver and the surgeon is able to maintain tactile sense of lo-

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STENTING AND DECOMPRESSION IN OBSTRUCTIVE COLORECTAL CANCER - IS THIS A REAL ADVANCE IN THE MODERN COLOPROCTOLOGY?

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Reviewed by: prof. R. Madjov

ABSTRACT

The aim of the study is stenting and decompression (non-operatively and operatively) in case of obstructive colorectal cancer and if they are really an advance in the modern coloproctology. The stenting as palliation is effective in 90% of the cases and most patients have no obstruction until they die from the metastatic disease. The stenting is attractive and alternative method for colonic decompression for obstructive colorectal cancer (CRC), which helps the bowel preparation for further planned oncological resection. The stenting is useful for high-risk patients and candidates for laparoscopic resection. The emergency surgery is avoided in 94% of the patients.The stents can be used for protection of colorectal anastomoses, avoidance of stenosis after mucous resection, the optimization of treatment allowed for planned laparoscopic resections. The complications after stenting of the colon are: migration 11%, perforation 4.5%, tumor ingrowth 12%; the clinical success was 85% to 100%, mortality from 0% to 2%, primary perforation 0%, mortality after re-stenting 5%. Primary stenting followed by surgery is the future. Preoperative stenting may benefit the postoperative results after the consequtive surgery. The aim is to establish the cases in which stenting improves the course of the disease in comparison to emergency surgery. Today stenting and decompression of obstructive colorectal cancer are seen as huge advance in the modern coloproctology.

Key words: colonic stent, colorectal cancer obstruction, colorectal cancer, emergency surgery, minimally invasive surgery

The colorectal cancer is the third most frequent neoplastic disease worldwide. The colonic cancer is more frequent than the rectal: in the high-risk populations the proportion is 2:1, as in the low-risk countries it is approximately 1:1. In Europe alone 250 000 new cases of colorectal cancer are diagnosed yearly - about 9% of all neoplastic diseases. The incidence is increasing with urbanization and industrialization and is less frequent in Western and Northern Europe in comparison to Eastern and Southern Europe (25).
Generally the incidence rate is increasing in countries where the overall risk of colonic cancer is low, as in the countries with high risk it has stabilized and the morbidity is decreasing, especially in younger groups.
Approximately 70% of the patients with colonic cancer are over 65 years of age and it is very rare under 45 years of age (2/100 000 yearly) (25).
The overall rate of the cases with rectal cancer in the European Union is about 35% of all colorectal cancer cases, 15-25/100 000 yearly. The mortality is 4-10/100 000 yearly and is lower for the female gender (2010) (25).
The aim of the study is stenting and decompression (non-operatively and operatively) in case of obstructive colorectal cancer and if they are really an advance in the modern coloproctology.
The self-expandable stents are applied in the following cases:

1. For palliative procedures for incurable patients - 25% of the patients have incurable metastatic disease on the first examination. The aim is to overcome the obstruction and to alleviate the pain-syndrome, for which the stenting is the ideal non-invasive procedure.

The stenting as palliation is effective in 90% of the cases and most patients have no obstruction until they die from the metastatic disease (14).
The advantages are avoidance of surgery, significantly lower mortality and morbidity, avoidance of ostomy (14).
From 169 patients (from 1999 to 2006) with malignant obstruction 160 patients were stented. 95% of the obstructions were resolved only this way. In the palliative group the stents were placed for 45 days or until complications occur (Mayo Clinic).

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MODERN ASPECTS OF CLINICO-PATHOLOGICAL CHARACTERISTICS AND TREATMENT OF MALIGNANT COLONIC OBSTRUCTION

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Reviewed by: assoc. prof. P. Ghenev

ABSTRACT

The colorectal cancer is diagnosed at its complicated stage in 40 to 60%, including 35% with symtptoms of colonic obstruction˙ The postoperative mortality remains high, as well as the lethality. Our aim is to study the up-to-date aspects in the clinico-pathological characteristics and treatment of malignant colonic obstruction (colon ileus-cancer). From 1009 patients operated for 24 years (1982-2005) with colorectal cancer with median age 67 years 378 patients (37.4%) were over 70 years. The most important aim is to overcome the obstruction and restore the intestinal passage and if possible perform a resection of the tumor. The surgical tactics in case of malignat obstruction of the right colon is well described in the literature, but the question of tactics in case of left colon remains – single or double-stage operation.Other methods have also been discussed, such as cecostomy, NdYAG laser vaporization of the obstructing tumor. The stenting is related with significant advantages and is used for palliative procedures or as a bridge to surgery.

Key words: colorectal cancer, emergency surgery, colonic obstruction

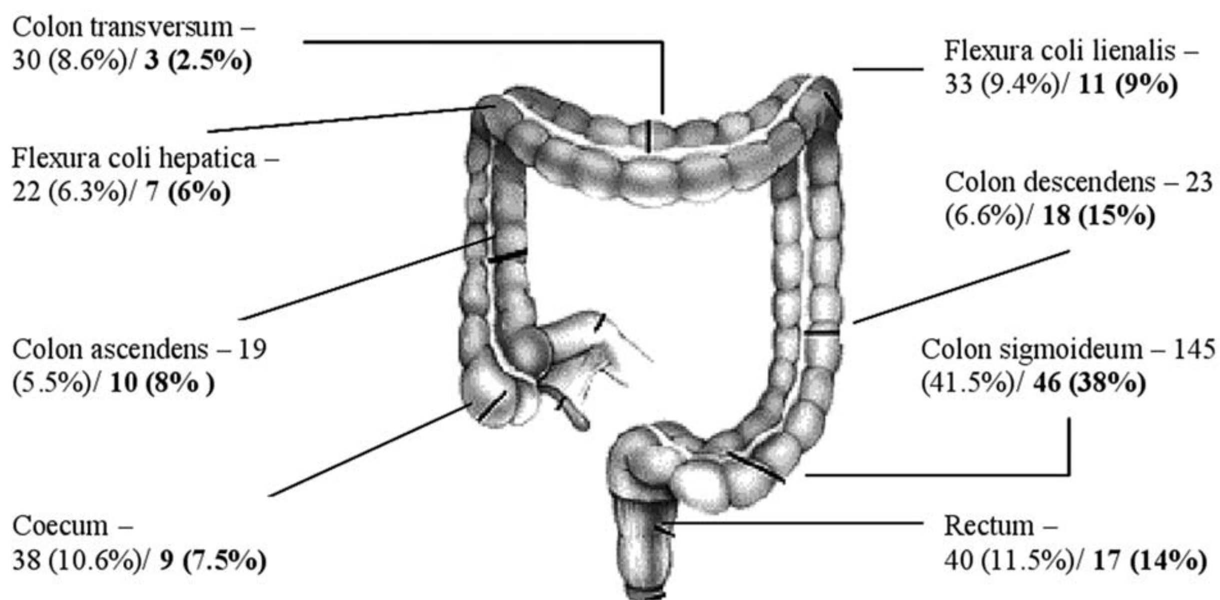

Fig. 1. Localization of malignant obstruction

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The most frequent cancer in the American population is the colorectal cancer and is the second leading cause for lethality. In the USA 135 000 to 160 000 new cases are found yearly and 60 000 are the deceased patients. The incidence in Europe is increasing (25/100 000), as for the Scan-

ЛАПАРОСКОПСКА ИНТЕРСФИНКТЕРНА РЕЗЕКЦИЯ

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ВЪВЕДЕНИЕ: Исторически радикалната резекция за карцином на дисталния ректум се свързва с извършването на абдомино-перинеална резекция. Въвеждането на по-близки до тумора дистални резекционни граници, прилагането на неоадювантната терапия и интер-сфинктерната резекция прави възможно извършването на сфинктеро-запазващи операции при болни с ниски ректални тумори. През последното десетилетие, започна да се прилага по-широко метода на интерсфинктерната резекция, целящ едновременно сфинктеро-съхраняване и некомпрометиране на онкологичната радикалност. Създадени са стандарти за приложение на метода, като са уточнени неговите индикации и контраиндикации. Отворен остава въпросът дали увеличения дял на интерсфинктерните резекции ще доведе до: 1- намаляване процента на АПР или 2- намаляване процента на предните резекции. С широкото налагане тоталната мезоректална ексцизия (ТМЕ) [1], концепцията на спесимен ориентирана хиругия доведе до подобряване на резулатите от оперативното лечение на ректалния рак. [2]. Техническите постижения в областта на хирургичния инструментариум доведе до промени във височната на резекция. [3] Необходимото отстояние може да бъде намалено до 1 см от тумора.[4] Вследствие на това проблеми като качеството на живот и сексуалната активност излязоха на преден план, като наличието или отсъствието на дефинитивна колостома се определя като основен фактор, влияещ върху качеството на живот според повечето автори[5]. Честотата на абдомено-перинеална резекция се идентифицира като независим маркер за качество на живот след оперативно лечение на болни с нисък рак на ректума.[6] Развитието на методите за ресторативна хирургия при рак на ректума с ексцизия на част или целия сфинктерен апарат, първоначално приложени при болни с възпалителни заболявания на червата, [7] и реконструкцията чрез ръчна коло-анална анстомоза разширяват индикациите за прилагане на резекции със запазване нормалния път на дефекация. От друга страна прилагането на мини-инвазивни, лапароскопски методи методи при оперативно лечение на коло-ректален рак подобрява следоперативното възстановяване без да компрометира функционалните и онкологични резултати, като това е доказано в голямо количество проучвания, публикувани през последните 5 години.[54] Създадени са стандарти за приложение на метода като са уточнени неговите индикации и контраиндикации. Отворен остава въпросът дали увеличения дял на интерсфинктерните резекции ще доведе до: 1- намаляване процента на АПР или 2- намаляване процента на предните резекции. Резулатите на редица автори показват сигурност и надеждност при прилагането на лапароскопска резекция и лапароскопска екстирпация. Комбинирането на двата подхода – интерсфинтерна резекция със мини-инвазивен, лапароскопски подход би довело до намаляване на процентното съотношение на АПР с по-бързо възстановяне на болните в следоперативният период. [55]

Поставихме си за цел да установим какви доказателства за приложимостта на метода на интер-сфинктерна резекция. Предлагаме комбинирането му с лапароскопски достъп, като докладваме нашия опит.

МЕТОД: В достъпната литератури намерихме сигурни доказателства за Приложеният от нас метод на лапароскопска ИСР добавя миниинвазивност към всички положителни качества на конвенционалната ИСР.

Индикации: Основна индикация за прилагане на метода на ИСР при радикално лечение на нисък рак на ректума е намирането на баланса между онкологичните и фун-

кционални резултати. По
linea dentata, без инвазия
чрез класическа предна ре
с автоматичен съшивател.
дикация за извършване на
тивни методи.[14] Докато н
стояние на тумора на 0,5-
тивният подход и извършв
линия се приема, когато е
кална инвазия остава осно
Обхващането на вътрешни
докато инвазирането на въ
траиндикация и тогава
[10,11,14,23,25,26,30,31]. М
но-магнитен резонанс (MR
комбинация от двата [10,1
ната интервенция само сле
върждаване на R-0 резекци
ненция" и „добра сфинктер
формално чрез клинични и

Хирургична техника

Съществуват различ
сфинктерна резекция. Те в
посредством перинеален и
не или след освобождаване
то чрез лапаротомиоя или
почита метода на лапароск
риране на периректалните
гане на ръчна коло-анална
дии, със сходни резултати
към интерсфинктерното пр
нея в зависимост от това д
само част от него. [13,14,1
перативна смъртност от 1,
анастомозата от 5,8%. [55]
[21] Локален рецидив се на
88% от тях са били в III кли
14%) от болните [14,21,22,
ладва при 81.5% от болнит
чима редукция от средно 29
гане на аналния канал оста
[11]. Множество изследвани
болни след АПР показват н
чието или отсъствието на
група 41-44, основния крите
рирани болни. [10]

РЕЗУЛТАТИ

В I-ва Клиника по хир
ктерни резекции. Първите 6
сфинктерна резекция. След
интерсфинктерна резекция

РАДИКАЛНО ЕНДОСКОПСКО ЛЕЧЕНИЕ ПРИ РАНЕН КОЛОРЕКТАЛЕН РАК

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ВЪВЕДЕНИЕ: С подобряването на хирургичния и ендоскопски инструментариум, честотата на ранните форми на колоректален факт се повиши. Налага се преосмисляне на някои лечебни стратегии, с цел подобряване на следоперативните резултати, без да се компрометира онкологичната целесъобразност.
МЕТОДИ: Като част от проспективно проучване, бяха открити и лекувани посредством ендоскопски радикални методи 47 болни с ранни форми на колоректален рак, за периода 2010-2012. Като ранни форми бяха счетени аденокарцином in situ и T1. Липсата на пенетрация на мускулния слой бе изследвана посредством ендолуменен ултразвук
РЕЗУЛТАТИ: Всички болни бяха открити, диагностицирани и радикално лекувани в Първа Клиника по Хирургия, Университетска болница „Св. Марина" – Варна. Бе извършено радикално ендоскопско лечение при 44 болни. При трима болни не бе възможно поради локализацията на новооткрития процес. При 28 болни бе извършена ендоскопска субмокозна резекция, като при 27 болни (96%) бе постигната R-0 резекция. При 16 болни с carcinoma in situ бе извършена ендоскопска субмукозна резекция като при всички бе извършено радикално лечение. Като усложнения бяха наблюдавани перфорация при един болен (4%), при който бе извършена лапаротомия и сегментна резекция. При двама болни се наблюдава продължително кървене, което се овладя с ендо-клип. Всички 48 болни бяха проследени ендоскопски, като при 32 болни бяха направени контролни ендоскопии на 6 и 12 месец, а при 16 болни – на 6 месец. Бяха открити двама болни с локален рецидив – 4.5%.
ЗАКЛЮЧЕНИЕ: Нашите резултати предполагат, че ранните форми на колоректален рак, след адекватно предоперативно стадиране по отношение на локален и системен статус, могат да бъдат радикално лекувани посредством методите на ендоскопска резекция, постигайки по-добри следоперативни и съпоставими онкологични резулатати.

INTRODUCTION: With the advance of the surgical and endoscopic devices the rate of early colorectal cancer has increased. Some of the treatment strategies should be reconsidered in order to achieve better postoperative results, without compromising the oncological principles.
METHODS: In a prospective study 47 patients with early colorectal cancer were diagnosed and managed by curative endoscopic treatment for the period 2010-2012. An early colorectal cancer is considered adenocarcinoma in situ and T1. By endoluminal ultrasound, we ruled out invasion of the muscle layer.
RESULTS: All patients were diagnosed and cured in the First Surgical Clinic at the University Hospital "St. Marina"- Varna. We performed radical endoscopic treatment in 44 patients. In three patients, the endoscopic treatment failed because of the localization of the neoplasm. In 28 patients we performed endoscopic submucosal resection and in 27 patients (96%) R0 margin was achieved. In 16 patients with carcinoma in situ endoscopic submucosal resection was performed, followed by radical treatment. The complications were perforation in 1 patient (4%), in whom a laparotomy with segmental resection was performed; in 2 patients bleeding occured, which was controlled by endo-clips. All 48 patients were followed-up endoscopically. In 32 patients, the control endoscopy was performed on the 6th and the 12th month, and in 16 patients – on the 6th month. Two patients were found to have a local recurrence – 4.5%.
CONCLUSION: Our results suggest that early colorectal cancer might be radically cured by

ДЯСНА ПОРТАЛНА ЕМБОЛИЗАЦИЯ ПРИ МЕТАСТАЗИ ОТ КОЛОРЕКТАЛЕН РАК.

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ВЪВЕДЕНИЕ: Порталната емболизация се използва за лечение на пациенти, подлежащи на чернодробна резекция, когато оставащия черен дроб е с недостатъчен обем. Тази процедура при подобни пациенти, едновремено с двуетапната хепатектомия е единствения шанс за радикално лечение на тези болни с вторично малигнено чернодробно заболяване.
ЦЕЛ: Да представим случай на чернодробна портална емболозация като предоперативна подготовка при радикална чернодробна резекция по повоед метастзи от колоректален рак. Извършихме оценка на хипертрофията на черния дроб и **постоперативната чернодробна функция.**
МЕТОДИ: Пациентка с метастази от колоректален рак, която беше подложена на предоперативна портална емболизация и на следващ етап на разширена дясна радикална хепатектомия
ЗАКЛЮЧЕНИЕ: Порталната емболизация разширява индикациите за радикална чернодробна резекция.

INTRODUCTION: Portal vein embolization is a procedure, which is used to treat patients, subjected to hepatic resection, when the volume of the future remnant liver is not sufficient. This procedure together with two stage hepatectomy is the only chance for radical treatment in patients with secondary malignant liver disease.
AIM: To present a clinical case report of liver portal embolization as preoperative preparation for hepatic resection due to liver metastases in patients with colorectal cancer. We evaluated the hypertrophy of the liver as well as the postoperative liver function.
METHODS: A female patient with liver meta from colorectal cancer, underwent preoperative portal embolization which was followed on a next step by right radical hepatectomy.
CONCLUSION: Portal vein embolization extends the indications for right radical hepatectomy.

ВЪВЕДЕНИЕ: Перкутанната транскатетърна емболизацие е метод за вътресъдово отлагане на частици, течност, или механични средства, или кръвен съсирек с цел умишлено запушване на съда.Тези частици може да се използват за оклузия на големи чернодробни артерии или вени. Перкутанната транскатетърна емболизация може да бъде изпозлвана както с лечебна така и с палиативна цел. Емболизация може да се извърши поетапно, особено в случаите на сложни или множествени лезии.Предоперативната портална емболизация (ППЕ) е извършена за 1 път през 1986 в Япония(1). В началото на 90-те в Япония и Франция са извършени няколко проучвания относно ППЕ(2-4). Днес ППЕ е все повече се използва като предоперативна метод при пациенти на който им предстои голяма чернодробна резекция а бъдещия остатъчния чернодробен обем е недостатъчен(5). Ако ППЕ не бъде извършена, тези пациенти са изложени на голям риск да развият чернодробна недостатъчност. Много от водещите хирурзи смятат че минималния остатъчен бъдещ чернодробен обем трябва да не е по малко от 25% от първоначалния чернодробен обем(6), а при пациенти които ще бъдат подложени на химиотерапия този обем трябва да бъде по висок(7-8). Емболизацята на порталната позволява преразпределението на порталняи кръвоток към остатъчния черен дроб и снабдяването му с хипертрофиращи субстанции а имен-

ЛАПАРОСКОПСКА КОЛЕКТОМИЯ ПРИ РАК НА ДЕБЕЛОТО ЧЕРВО

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ВЪВЕДЕНИЕ: Съвременното приложение на миниинвазивна, лапароскопската хирургия при рак на дебелото черво се възприема като онкологичен еквивалент на конвенционалната отворена хирургия. Наличната литература за лапароскопската резекция на колона предимно ретроспективна

РЕЗУЛТАТИ: Броят проспективни рандомизирани проучвания, сравняващи лапароскопската с отворената хирургия, е ограничен. Не се установиха разлики в честота на локални рецидиви за 5-годишен период. Изтъкват се по-добрите краткосрочни резултати, в това число по-бързо възстановяване, по-кратък болничен престой, намалена нужда от аналгезия, но за сметка на по-дълго оперативно време и като цяло по-висока цена.

ЗАКЛЮЧЕНИЕ: Лапароскопската резекция на дебело черво по безопасност и ефикасност се равнява на конвенционалната отворена резекция, но все още не е установена като златен стандарт. Лапароскопската резекция трябва да отговаря на онкологичните стандарти и да постига дългосрочни онкологични резултати, които да са най-малко еквивалентни на тези на отворената резекция. Няколко международни рандомизирани контрлирани проучвания са осигурили достатъчно данни, които потвърждават онкологичната адекватност на лапароскопската резекция на дебело черво, а също така демонстрират ползата от този метод по отношение на краткосрочните резултати след резекция.

ВЪВЕДЕНИЕ: Колоректалният рак е едно от най-често срещаните малигнени заболявания в днешно време (1). Хирургичното отстраняване на първичния тумор с адекватни маржове и лимфаденектомия осигуряват най-добра свободна от заболяване преживяемост и обща преживяемост. Конвенционалната отворена колектомия се счита за златен стандарт, както за малгигнени, така и за бенигнени заболявания на дебелото черво. За пръв път лапароскопски подход при колектомия е описан през 1990г (2) и ако тогава е считан за техническо предизвикателство, то днес представлява алтернатива на класическата дебелочревна резекция. Предимства в сравнение с отворения достъп при колектомия включват по-добри козметични резултати, по-малка постоперавивна болка, по-бързо възстановяване на чревната функция и следователно по-къс болничен престой и възстановяване на работоспособността (3).

МАТЕРИАЛ И МЕТОДИ: Десет годишно популационно проучване за периода 1996-2006г. включва 3709 лапароскопски колектомии от 192 620 планови колоректални резекции. Данните от него сочат, че при пациентите след лапароскопска колектомия се наблюдава значително намаляване на 30-дневната и едногодишната смъртност в сравнение с отворената колектомия (4). Въпреки че ЛК е възприета при лечението на доброкачествени заболявания, приложението и при злокачествени тумори е ограничено само в рамките на големи клинични проучвания, поради недоказаната безопасност и ефективност по отношение на краткосрочните и дългосрочните онкологични резултати. Този проблем е обсъждан в редица международни рандомизирани контролирани проучвания, статии и мета-анализи. Въпреки че някой от тези проучвания са били критикувани за лоша методология и пристрастност (5), като цяло лапароскопската колектомия е приета за безопасен и онкологичен еквивалент на отворената колектомия при лечението на болни с колоректален рак. Очакват се нови

ЛАПАРОСКОПСКА РЕЗЕКЦИЯ НА РЕКТАЛЕН РАК.

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ВЪВЕДЕНИЕ: В настоящата епоха на миниинвазивна хирургия, лапароскопската хирургия при рак на правото черво все още не е възприета като онкологичен еквивалент на конвенционалната отворена хирургия. Миниинвазивната хирургия на правото черво все още е в процес на утвърждаване, като прилагането и в практиката не е рутинно. Предимствата на лапароскопската хирургия се изразяват в по-малки разрези и по-кратък период на следоперативно възстановяване. Наличната литература за лапароскопската резекция на колона и ректума е предимно ретроспективна, като има ограничен брой проспективни анализи.
МАТЕРИАЛ И МЕТОДИ: С настоящата публикация се прави обзор на литературата, дискутираща съвременото състояние на минивинвазивните методи на лечение на ректума. Извършен е преглед върху по-скорошни ретроспективни и проспективни данни.
ДИСКУСИЯ: Въпреки обещаващите данни за приложимостта на лапароскопската хирургия, отворената хирургична резекция остава настоящият метод на избор при ректален рак.
ЗАКЛЮЧНИЕ: Очаква се дългосрочните резултати от провеждащи се и скоро започнати мулти-институционални проучвания да доизяснят ролята на лапароскопията при лечението на среден и нисък рак на ректума

INTRODUCTION: In the current era of minimally invasive surgery the laparoscopic surgery for rectal cancer is still not accepted as a oncological quivalent to the conventional open surgery. The minimally invasive surgery of the rectum is awaitng approval and its not practiced routinely. The advantages of the laparoscopic surgery are shorter incisions and faster recovery. The current literature concerning laparoscopic colon and rectal resection is mainly retrospective with limited number of prospective analyses.
MATERIALS AND METHODS: The current publication is a review of the literature, discussing the up-to-date state of minimally invasive methods for treatment of rectal cancer. A review on recent retrospective and prospective studies is performed.
DISCUSSION: Despite the promising data for applicability of laparoscopic surgery, the open surgery remains the current method of choice for treatment of rectal cancer.
CONCLUSION: The long-term results of currently ongoing and recently started multi-institutional studies are awaited to clarify the role of the laparoscopic surgery in the treatment of middle and low rectal cancer.

ВЪВЕДЕНИЕ: Лапароскопската колектомия при злокачествени тумори е широко застъпена в практиката, като има повече предимства в сравнение с отворената процедура. Те включват по-малка интраоперативна кръвозагуба, по-малка следоперативна болка, по-кратък болничен престой, по-бързо завръщане към работа и формирането на по-малко сраствания (1-3). Първоначалните съмнения относно възникването на порт-сайт метастази и адекватния обем на резекция бяха отхвърлени. Лапароскопският подход при ректален карцином не е универсално приет. В това проучване обобщаваме краткосрочните и дългосрочните резултати при лапароскопския метод и ще отбелязваме някои от техническите аспекти, които повлияват резултатите. Хирургичната резекция при ректален карцином изисква извършването на тотална мезоректална ексцизия (ТМЕ) при тумори в средната и ниската част на ректума. Тази процедура разглежда ректума и мезоректума като една лимфоваскуларна структура и изис-

LAPAROSCOPIC FUNDOPLICATION NISSEN-ROSETTI – RARE CASE WITH CONCOMITANT DISEASES

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Laparoscopic antireflux surgery is the gold standard procedure for treatment of patients with reflux esophagitis. Laparoscopic fundoplication (LF) is changing the way chronic heartburn is managed around the world. Data from New York State and elsewhere have demonstrated a three to fivefold increase in the number of fundoplications performed for gastroesophageal reflux disorder (GERD) over the last decade.[1] The CDC estimates that 12,000 such procedures were performed in the United States in 1987 and 48,000 in 1998.[2,3]

The purpose of this study is to report personal experience by a rare case from our practice with many concomitant diseases in laparoscopic antireflux surgery, analyzing the clinical and functional outcomes of this procedure and review of the literature.

Hiatal hernias are usually classified into four distinct types: type I, sliding hernia; type II, paraesophageal hernia; and type III, a combination of type I and II hernias and type IV brachiesophagus (14). This type is based on the classic classification of Akerlund (13) Presentation of type I hernia is so-called reflux symptoms, in contrast with the symptoms associated with mechanical obstruction of the herniated stomach in type II and III hernias. Surgical indications for type I hernia depend upon the severity of esophagitis. In type II and III hernias, severe symptoms and complications represent the chief indications for repair. Totally intrathoracic stomach hernias generally present such a risk of volvulus, strangulation, and perforation that surgery is indicated even in asymptomatic and uncomplicated cases.[12]

The main indication for surgery in patients with GERD is the failure of long-term medical therapy. All patients have to had severe acid reflux, proved by 24h-pH monitoring, endoscopic evidence of esophagitis, and insufficient function of the lower esophageal sphincter. [7-9]

Failure of open fundoplication occurs in 9% to 30% of patients, depending on how failure is defined and how long until follow-up.[4–6] Published failure rates of laparoscopic Nissen fundoplication are 2% to 17%, [7–11] depending on the definition of failure and the experience of the surgeons. The lower rate published for laparoscopic surgery may reflect the shorter follow-up possible for this new procedure. When there is impossibility for continuing the laparascopic procedure, the surgeon has to consider a conversion.

The most common reason for conversion is the intraoperative hemoraghe in patients with defect of the diaphragm's hiatus. There is consensus on certain individual risk factors and their additive effect on the likelihood of conversion. Statistically significant risk factors for conversion also are increasing age, a history of previous upper abdominal surgery, severe concomitant cardio and pulmonic diseases. The combination of patient- and disease-related risk factors increases the conversion risk. In the training of residents, the number of cases needed for reaching proficiency exceeds 200 cases. Conversion exerts adverse effects on

ОПЕРАТИВНО ЛЕЧЕНИЕ НА НАДБЪБРЕЧНИ ТУМОРИ – ЕДНОГОДИШЕН ОПИТ

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ВЪВЕДЕНИЕ: С напредването на технологиите, вариантите за хирургична намеса при надбъбречни тумори стават все по разнообразни. За избора на най-подходящата операция, при всеки отделен болен са важни диагнозата на тумора, специфичните фактори на пациента, както и правилна оценка на критерия полза/вреда.(1) В практиката се прилагат предни или задни конвенционални, трансабдоминални или ретроперитонеални – лапароскопски, торако-абдоминални, както и парциални адреналектомии. Хирургичното лечение остава единственото възможно радикално за хормонално-активните аденоми, и като правило за малигнените състояния. След първата извършена лапароскопска адреналектомия (ЛА) от Gagner през 1992г., тази процедура се превръща в златен стандарт при болни с доброкачествени неоплазми.(2-4) Приложението и при малигнени състояния все още е обект на изследване, със резултати подкрепящи разширяването на индикациите за ЛА.(5,6) Съществуват различни оперативни модификации на метода, като най-често се срещат съобщения транс-перитонеален и ретроперитонеален подход.(7,8) Мини-инвазивните техники предлагат удобството на скъсения период на възстановяване и намалени усложнения, докато традиционната конвенционална хирургия остава златен стандарт при случаите на аденокарцинома. (2-4,6) Ние представяме опита на Първа клиника по Хирургия на УМБАЛ „Св. Марина" като съобщаваме нашите резултати от приложението на ЛА и сравняваме ретроспективно данните от прилагането на отворен достъп. Някой автори съобщават големината на тумора (при тумори > от 6 см) като контра индикация за мини-инвазивен достъп поради технически трудности, повишен риск за малигнитет и последваща дисиминация, но при някои нови студии тези критериисе коментират само в релативен контекст.

МАТЕРИАЛ И МЕТОДИ: За периода 2004-2009 са оперирани 24 болни с образни данни за туморни формации, засягащи надбъбречна жлеза. Разпределението по пол бе 14 мъже и 10 жени на възраст от 27 до 76 години. Десет от тях са оперирани посредством отворен достъп, предимно през първата половина на периода (2004-2006). Четиринадесет болни са оперирани чрез транс-перитонеална лапароскопска адреналектомия. Трима болни бяха с двустранна локализация (MEN 2A-синдром). Алгоритъмът за диагностика и предоперативна подготовка включваше - анамнеза за резистентна на медикаментозно лечение АХ, плазмен кортизол и серумен АКТХ, образни изследвания на НБЖ(КАТ, ЯМР, ПЕТ/КТ)., цитогенетични изследвания за МЕН-2-А при двустранните локализации. Оперативната намеса бе индицирана при остановяване на малки или хормонално не-активни тумори, Синдорм на Conn, Синдром на Cushing, хормонално активни аденоми, феохромоцитоми, инциденталоми, с размери > 3. Като контраиндикации за прилагането на лапароскопски достъп бяха изпозлвани предходни оперативни намеси в горен коремен етаж поради риска от адхезии, оперативни намеси върху бъбрек и черен дроб, големи тумори - > 8 см. Напредналата възраст, повишеният BMI, сърдечната и белодробна дисфункция, до скоро абсолютни контра-индикации за лапароскопски достъпи, все по-често се докладват като индикации за мини-инвазивни операции поради повишените възможности на реанимация и ползите от намаленият травматизъм.

Лапароскопският метод включваше поставяне на болния в положение Jack-knife, в съответствие с локализацията на засегнатият надбъбрек. (фиг 1.) След постигане на пневмоперитонеум и извършване на експлоративна лапаросокопия се поставяха 4 порта

СЪВРЕМЕННО ХИРУРГИЧНО ЛЕЧЕНИЕ НА ЧЕРНОДРОБНА ЕХИНОКОКОЗА

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ВЪВЕДЕНИЕ: Чернодробната ехинококоза е сериозен проблем в медицинската практика, който може да предизвика съществена заболеваемост и смъртност. Най-често засегнатият орган в следствие на заболяването е черния дроб.
ЦЕЛ: Това проучване се извърши с цел да се сравнят резултатите и ефективността на интервенционалните и конвенционалните оперативни техники за лечение на чернодробния ехинокок
.
МЕТОДИ: Направен е сравнителен анализ на отворените и лапароскопски оперативни подходи при пациенти с чернодробна ехинококоза. Изследвани са 235 болни с ехинокок на **черен дроб – 98 деца и 137 възрастни в периода от 2001 до 2011година.**
РЕЗУЛТАТИ: Не са наблюдавани локални рецидиви и в двете групи, но при трима пациенти е настъпила прогресия на заболяването. Не са регистрирани случаи с летален изход и абдоминална дисеминация. Като леки усложнения са наблюдавани на оперативната рана при 5 пациенти. Абсцедиране на кистната кухина бе бе наблюдавано при шест пациенти, а при седем пациенти се се разви билиарна фистула, от които всички с отворен метод.
ЗАКЛЮЧЕНИЕ: Отворената хирургия не е първи избор на лечение при чернодробна ехинококоза. Лапароскопската процедура е приложима и безопасна, намалява постоперативния период на хоспитализация, както и броят на усложненията. Лапароскопският метод може ефективно да замести конвенционалните хирургични техники в лечението на чернодробната ехинококоза.

INTRODUCTION: The liver echinococcosis is a serious problem in the medical practice, which can cause significant morbidity and mortality. The most frequently affected organ is the liver.
AIM: This study aimed at comparing the results and effectiveness of interventional and conventional operative techniques in the treatment of liver echninococcosis.
METHODS: A comparative analysis was performed of the open and laparoscopic operative methods in patients with liver echninococcosis. We included 235 patients with liver echnococcosis – 98 children and 137 adults for the period 2001 to 2011.
RESULTS: No local recurrence was observed in both groups, but in three patients we observed progression of the disease. There was no letality and abdominal dissemination. Slight complications were observed in six patients after open surgery and in seven patients biliary fistula have developed.
CONCLUSION: The open surgery is not a method of first choice in liver echninococcosis. The laparoscopic procedure is feasible and safe, lowers the postoperative hospital stay, as well as the number of complications. The laparoscopic method can safely replace the conventional surgical methods in the treatment of liver echninococcosis.

ВЪВЕДЕНИЕ: Echinococcus granulosus е причинителqt на ехинококовата болест, която е една от основните зооантропонози и засяга както животните, така и човека. Описана е и се среща на всички континенти. Болестта и до днес остава ендемична в райони по света,където местното население се занимава с главно овцевъдство (дребен рогат добитък) – Африка, средиземноморският Европейски регион, близкият изток, Азия, Южна Америка, Австралия и Нова Зеландия (1-3).

На първо място по честота е засягането на черния дроб - до 80% от случаите

LAPARASCOPIC INTERSPHINCTER RESECTION - INDICATIONS AND CONTRAINDICATIONS

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Laparoscopic intersphincteric resection – indications and contraindications

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ABSTRACT

INTRODUCTION Proctectomy with intersphincteric resection is an alternative to abdomino-perianeal resection for patients with low rectal cancer with similar oncological results, aiming at preserving the sphincter-function. The laparoscopic ISR gains evidence for its feasibility. **METHODS:** The object of the review of the literature was evidence regarding indications and contraindications, oncological and postoperative results. Our experience includes 38 patients after open and laparoscopic ISR. **RESULTS:** According to 11 studies and our results the complication rate was comparable in LS and OS groups. LS group had shorter hospital stay and operative time and less operative blood loss. The rate of local recurrence is comparable in both groups. The combined three-year disease-free survival for all stages was similar. **CONCLUSION:** Oncological outcomes after ISR for low rectal cancer are acceptable with often imperfect functional results, and the laparoscopic ISR being a safe minimally invasive alternative. The oncological feasibility of the laparoscopic ISR should be confirmed by long-term follow-up, as the midterm results are equivalent to those after OS.

PRECIS

Proctectomy with intersphincteric resection is an alternative to abdomino-perianeal resection for patients with low rectal cancer with similar oncological results, aiming at preserving the sphincter-function. We report our results and performed review of the literature concerning laparoscopic and open ISR. The oncological and postoperative results of open and laparoscopic ISR are comparable to those after abdomino-perineal resection although with often unsatisfactory results. The oncologic feasibility of laparoscopic ISR should be confirmed by long-term follow-up, a as the midterm results are equivalent to those after OS.

LAPAROSCOPIC TREATMENT OF LIVER HYDATID DISEASE

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ABSTRACT

Surgical treatment has been considered the only available treatment of liver hydatid disease because of the complete removal of the parasite. According to the new standards for clinical approach to hepatic hydatid disease, there is no golden rule and the individual approach to every patient and cyst is of greatest importance. The laparoscopic method in the treatment of liver hydatid disease includes complete excision of the cyst, unroofing, evacuation and obliteration of the cyst cavity. Some authors perform a direct exploration of the cyst cavity in order to reject or confirm the presence of the communication of the cyst with the biliary tree. The laparoscopic method has advantages as a minimally invasive method with shorter hospital stay and minimal risk of wound complications. All the arguments prove the laparoscopy to be feasible and effective method of treatment of liver hydatid disease.

Key words: *liver hydatid disease, laparoscopic surgery, advantages, indications, data-bases*

INTRODUCTION

Surgical treatment has been considered the only available treatment of liver hydatid disease because of the complete removal of the parasite. Nowadays, except for surgery, the clinical approach to the disease includes several therapeutic methods varying from adjuvant therapy with benzoimidazole carbamates such as mebendazole and albendazole to percutaneous treatment such as PAIR (11). According to the new standards for clinical approach to hepatic hydatid disease, there is no golden rule and the individual approach to every patient and cyst is of greatest importance (11,14). The surgical method is considered the method of choice for liver hydatid disease for many years. Its main goal is to inactivate the scolexes, to prevent dissemination in the abdominal cavity and to obliterate the remaining cavity. Several surgical methods have been introduced to obliterate the remaining cavity being related to a high risk of postoperative complications. This is the reason why some surgical methods such as marsupialization are not used anymore (10).

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MATERIAL AND METHODS

We performed retrospective problem-oriented literature searches in the following data bases: *ScienceDirect*, *SCOPUS*, *Web of Knowledge*, *InCities*, and *MEDLINE* (PubMed version) using the indexing terms of 'echinococcosis', 'hydatid disease', 'liver', 'echinococcal cyst' and 'Laparoscopic treatment' during the period 1995-2012. Here we present the current laparoscopic techniques, the advantages and disadvantages of the method as well as its indications and contraindications.

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CASE REPORT

AN UNUSUAL CASE OF SEVERE LOWER GASTROINTESTINAL BLEEDING IN AN INFANT

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Abstract

Background: Antibiotic associated colitis of the colon is a rare cause for severe lower gastrointestinal bleeding.
Case: A 1 year old male infant with severe lower gastrointestinal bleeding. The Child was in poor general condition and pale skin. On admission, the vital signs were as follows: blood pressure 60/40 mmHg, heart rate160 beats per minute with normal heart sounds and no murmurs.
Conclusion: The diagnosis and treatment of acute frank lower gastrointestinal bleeding in infants remains a challenge for surgeons. In our opinion, this is a rare case of massive blood loss from rectorrhagia. There are no standard diagnostic protocols or treatment algorithm. Severe lower gastrointestinal bleeding in children is rare and therefore not well documented or systematized. Comorbidity of haemophilia A and medication induced haemorrhagic colitis is an extremely rare pathology with obvious lethal potential. There is no documented case in medical literature.

Résumé

Un cas inhabituel de graves saignements gastro-intestinaux basse chez un nourrisson

Contexte: Colites associées aux antibiotiques du côlon est une cause rare de graves gastro-intestinale inférieure saignements.
Cas: A 1 année infantile âgé de graves hémorragies gastro-intestinales inférieures. L'enfant était dans un mauvais état général et la peau pâle. À l'admission, les signes vitaux étaient les suivants: pression artérielle 60/40 mmHg, le cœur rate160 battements par minute avec des bruits normaux du cœur et sans murmures.
Conclusion: Le diagnostic et le traitement des hémorragies digestives aiguës franche bas chez les nourrissons reste un défi pour les chirurgiens. À notre avis, ceci est un cas rare de perte de sang massive de rectorragies. Il n'y a pas de protocoles de diagnostic standard ou d'un algorithme de traitement. Sévère hémorragies digestives basses chez les enfants est rare et donc pas bien documentés ou systématisées. Comorbidité de l'hémophilie A et de médicaments induits colite hémorragique est une pathologie extrêmement rare avec un potentiel létal évident. Il n'ya aucun cas documenté dans la littérature médicale.

INTRODUCTION

Acute gastrointestinal bleeding in children can be life-threatening. The most frequent causes of lower gastrointestinal bleeding in children are colitis, enteritis, inflammatory diseases of the colon, diverticulitis, anorectal diseases, polyps and angiodysplasia.

Antibiotic Associated Colitis (AAC)

Antibiotic associated colitis (AAC) is a complication of prolonged antibiotic therapy and usually presents with mild episodes of diarrhea (1,2). However, some cases lead to overgrowth of toxin producing bacteria like Clostridium difficile, which causes AAC (3). A more severe form of this condition is the antibiotic associated haemorrhagic colitis (AAHC) (4). This is caused by the Gram-negative bacteria Klebsiella oxytoca particularly after prolonged use of penicillin-based antibiotics (5,6). Colitis caused by K oxytoca almost always presents with bloody diarrhoea, as opposed to C. Difficile related colitis (7). The endoscopy and histology features are characterised by haemorrhagic alteration of the affected mucosa. Pseudomembranes are seldom observed (8).

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ORIGINAL PAPER

COMPARATIVE ANALYSIS OF OPEN ECHINOCOCCECTOMY VS. PAIR TECHNIQUE IN CHILDREN – 10 YEARS EXPERIENCE

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Abstract

Background: Hydatidosis is a major problem in pediatric practice that can cause significant morbidity and mortality. The liver is the organ affected most frequently.
Aim: This study was carried out to compare the results and efficiency of mini-invasive and operative treatment of hydatid liver disease in pediatric patients.
Matherial and methods: Comparative analysis of surgical and percutaneous treatment of children with hepatic hydatid cysts is presented. Data was collected from the records of 98 patients with hydatidosis from 2001 to 2010.
Results: Minor complications were urticaria and fever in 3 patients with PAIR method and inflammation of the surgical wound in 5 patients. Major complications were infection of the cyst cavity in a patient and development of biliary fistula in 2 patients underwent operative surgery. No site recurrences were observed in both of groups, but in three patients we inspected progression of the disease. No mortality, abdominal dissemination, or tract seeding occurred.
Conclusion: Surgery has been replaced as the first choice treatment. PAIR can effectively replace surgical techniques in treatment of liver hydatid disease and may be imposed as a first method of choice.
Key words: Hydatidosis, PAIR, operative surgery, complications

Résumé

Analyse comparative des vs echinococcectomy open. Techniquepaire chez les enfants - 10 ans d'expérience

Introduction: L'hydatidose est un problème majeur dans la pratique pédiatrique qui peut entraîner une morbidité et une mortalité importantes. Le foie est l'organe le plus fréquemment affectés.
Objectif: Cette étude a été réalisée pour comparer les résultats et l'efficacité d'un traitement mini-invasif et opératoire de la maladie hépatique chez les patients pédiatriques hydatique.
Méthodes: Une analyse comparative du traitement chirurgical et percutanée des enfants atteints de kyste hydatique hépatique est présenté. Les données ont étécollectées à partir des dossiers de 98 patients atteints de kyste hydatique de 2001 à 2010.
Résultats: Les complications mineures ont été l'urticaire et de la fièvre chez 3 patientsavec la méthode PAIR et l'inflammation de la plaie chirurgicale chez 5 patients. Les complications majeures sont l'infection de la cavité du kyste chez un patient a et le développement de fistule biliaire chez 2 patients ont subi une chirurgie opératoire. Aucune récidive n'a été observée le site dans les deux groupes, mais chez trois patients nous avons inspecté la progression de la maladie. Aucune mortalité, la diffusion abdominale,ou ensemencement des voies survenu.
Conclusion: La chirurgie ne devrait plus être considérée comme le traitement de premier choix. PAIRE peuvent remplacer efficacement des techniques chirurgicales dans letraitement de la maladie hydatique du foie et peut être imposée comme une méthode de premier choix.
Mots clés: hydatidose, PAIR, chirurgie opératoire, les complications

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REVIEW

ENDO RECTAL ULTRASOUND IN THE DIAGNOSIS OF RECTAL CANCER

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Abstract

In the last couple of decades, endorectal ultrasound (ERUS) has become the primary method for locoregional staging of rectal cancer. ERUS is proved as the most accurate modality for assessing local depth of invasion of rectal carcinoma into the rectal wall layers (T stage). ERUS is not as the same prime stage for predicting nodal metastases. The use of multiple criteria might improve accuracy. Sometimes the misunderstanding of evaluation in nodal status could lead to inadequate surgical resection. ERUS can accurately distinguish early cancers from advanced ones, with a precise detection options for residual carcinoma in the rectal wall. ERUS is also useful for detection of local recurrence at the anastomosis site, which might require fine-needle aspiration of the tissue. Overstaging is more frequent than understaging, mostly due to inflammatory changes. Some limits of routine ERUS applications are operator and experience dependency, limited tolerance of patients, and limited range of depth of the transducer. The ERUS technique requires a learning curve for orientation and identification of images and planes. With sufficient time and effort, quality and accuracy of the ERUS procedure could be improved.

Résumé

Endo rectale ultrasons dans le diagnostic du cancer rectal

Au cours des dernières décennies, l'échographie endo-rectale (URE) est devenu la principale méthode pour stadification locorégionale du cancer du rectum. ERUS est prouvé que la modalité la plus précise pour évaluer la profondeur de l'invasion locale du cancer du rectum dans les couches de la paroi rectale (stade T). ERUS n'est pas aussi la même scène de choix pour prédire les métastases ganglionnaires. L'utilisation de critères multiples peut améliorer la précision. Parfois, le malentendu de l'évaluation dans le statut ganglionnaire pourrait conduire à une résection chirurgicale insuffisante. ERUS peut distinguer avec précision les cancers précoces de celles avancées, avec quelques options de détection précises pour le carcinome résiduel dans la paroi rectale. ERUS est également utile pour la détection de récidive locale au niveau du site d'anastomose, ce qui pourrait nécessiter l'aiguille fine du tissu. Overstaging est plus fréquente que understaging, principalement en raison de changements inflammatoires. Certaines limites des applications de routine sont URE opérateur et de la dépendance d'expérience, de la tolérance limitée des patients, et la portée limitée de la profondeur de la sonde. La technique nécessite ERUS une courbe d'apprentissage pour l'orientation et l'identification des images et des avions. Avec suffisamment de temps et d'efforts, la qualité et la précision de la procédure ERUS pourrait être améliorée.

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REVIEW

NEW STRATEGIES IN LIVER SURGERY FOR IV STAGE METASTATIC COLORECTAL CANCER

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Abstract

With recent advances in chemotherapy, traditional clinicopathological factors should not be used to exclude otherwise resectable patients from surgery. Pathological or clinical response to chemotherapy has become valuable in determining the treatment for individual patients. Portal vein embolization and two-stage operation with ablative therapy and preoperative chemotherapy should be considered for unresectable liver metastases located in a liver remnant that is at the minimum volume required for survival. The recent E0RTC 40983 trials regarding preoperative chemotherapy for resectable CLM have failed to demonstrate a clear significant advantage. However, patients with a low clinical risk score for the recurrence, such as several metastases of less than 4 cm, and who are fit candidates for liver resection are often offered immediate surgery. Patients at high clinical risk should also be considered for neoadjuvant chemotherapy. One forthcoming and appealing strategy is to adapt postoperative treatment according to tumor response as evaluated by neoadjuvant chemotherapy or by the presence of individual tumor biomarker such as the Kras mutation or single-nucleotide polymorphisms. This could avoid the overtreatment of nonresponsive patients and enable a more tailored approach to treat an individual patient's disease. The treatment paradigm for CLM is rapidly changing with the development of newer anticancer chemotherapeutic agents.

Résumé

Nouvelles strategies en chirurgie hépatique pour la phase IV du cancer colorectal métastatique

Avec les récents progrès de la chimiothérapie, les facteurs classiquesclinicopathologiques ne doit pas être utilisé pour exclure les patients non résécables résultant d'une chirurgie. Réponse pathologique ou clinique à la chimiothérapie est devenue précieuse pour déterminer le traitement pour des patients individuels.Embolisation portale et deux phases, avec une thérapie ablative et de la chimiothérapiepréopératoire doit être envisagée pour le foie inopérable métastases situées dans un vestige du foie qui est moins le volume minimum requis pour la survie. Le récent procèsconcernant E0RTC 40983 chimiothérapie préopératoire pour les CLM résécable ont échoué à démontrer un avantage évident significative. Cependant, les patients avec un score de risque clinique faible pour la récurrence, comme plusieurs de métastases de moins de 4 cm, et qui sont des candidats aptes à une résection hépatique sont souvent offerts intervention chirurgicale immédiate. Les patients à risque clinique élevé devrait également être envisagée pour la chimiothérapie néoadjuvante. Une stratégie à venir etattrayante est d'adapter le traitement post-opératoire en fonction de la réponse tumoraleévaluée per la chimiothérapie néoadjuvante ou per la présence de biomarqueurstumoraux individuels tels que la mutation du gène KRAS ou polymorphismes nucléotidiques. Cela pourrait éviter le surtraitement des patients non répondeurs et permettent une approche plus adaptée pour traiter la maladie d'un patient individuel. Le paradigme de traitement pour CLM est en évolution rapide avec le développement denouveaux agents anticancéreux chimiothérapeutiques.

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ORIGINAL PAPER

OUR INITIAL RESULTS AFTER LAPAROSCOPIC SURGERY FOR ULTRA LOW RECTAL CANCER

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Abstract

Although laparoscopic operation for colon and rectal cancer decreases post operative recovery time, its use for curative treatment especially for very low rectal tumors is still debatable. This study is analyzing the results of the safety and feasibility of the laparoscopic procedure including short-term results for lesions, located in the lowest part of the rectum.. Methods: In the present study 39 patients with rectal cancer were selected retrospectively and underwent laparoscopic surgery. Patients with cancer located in rectosigmoid part of the colon were not included in this study. Data of the patients, perioperative time that includes morbidity and mortality rates, surgical data were analyzed. The Kaplan-Meier method was used to evaluate the 1-year disease free survival rate.
Results: In this study 21 females and 18 males underwent laparoscopic surgery for low rectal cancer. Mean age of the patients was 63.7 years. The mean BMI was 22.6. The operative procedure of choice used in this study was low anterior resection (LAR) in 3 cases, abdominoperineal resection (APR) in 3 cases, intersphincteric resection (ISR) in 32 cases, and Hartmann procedure in one case. Mean operation time was 237.0 min. Blood loss was 165.0 ml. The postoperative morbidity was 22.9%. No postoperative mortality within 30 days postoperatively was experienced. The 1-year disease-free survival rate was 87.2% after curative surgery.
Conclusions: Laparoscopic operation for cancer, located in the lowest part of the rectum was considered safe and feasible in regards of postoperative morbidity, mortality and postoperative short-term results. Additional study is necessary to clarify the quality of the laparoscopic procedure including the postoperative long-term results.
Key words: rectal cancer, laparoscopic surgery, short-term outcome

Résumé

Nos premiers résultats après chirurgie laparoscopique d'ultra low cancer du rectum

Bien que la chirurgie laparoscopique pour le cancer colorectal améliore la récupération après opératoire, son utilisation pour le traitement curatif particulier pour le cancer du rectum est encore controversée. La présente étude est une tentative pour analyser les résultats de la sécurité et la faisabilité de la chirurgie laparoscopique, y compris résultats à court terme pour le cancer rectal. Méthodes: Cette étude cumulé 39 patients atteints de cancer du rectum rétrospective ayant subi une chirurgielaparoscopique. Les patients atteints de cancer du colon rectosigmoïde ont été exclus decette étude. Données de patients, les données périopératoires y compris la morbidité et la mortalité, les données chirurgicales ont été analysées, et la maladie frais 1-année de données de survie ont été calculés par la méthode de Kaplan-Meier.
Résultats: Il y avait 21 femmes et 18 hommes ayant subi une chirurgie laparoscopique pour le cancer rectal.L'âge moyen était de 63,7 d'entre eux ans. L'IMC moyen était de 22,6? La procédure opératoire a été résection antérieure basse (LAR) dans 3 cas, une amputation abdominopérinéale (APR) dans 3 cas, la résection intersphinctérienne (ISR) dans 32 cas,et la procédure de Hartmann dans un cas. Le temps de fonctionnement a été 237,0? Min. La perte de sang a été 165,0 ml. La morbidité postopératoire était de 22,9%. La mortalité postopératoire dans les 30 jours après la chirurgie n'a pas été expérimenté. Le 1-annéesans maladie taux de survie était de 87,2% après une chirurgie curative.
Conclusions: La chirurgie laparoscopique pour le cancer rectal était sûre et réalisable, y compris la morbidité postopératoire, la mortalité post-opératoire et les résultats à court terme. Des études complémentaires sont nécessaires pour clarifier la qualité de la chirurgie laparoscopique, y compris l'postopératoires à long terme des résultats.

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REVIEW

SURGICAL OPTIONS FOR CURATIVE RESECTION OF RECTAL CANCER

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Abstract

The present role of the curative treatment of rectal cancer are R-0 resections, anal sphincter preservation, and presence of enough sexual and voiding postoperative functions. Complete resection of rectal cancer and the surrounding mesorectum is the most important prognostic factor for patients and their quality of life. Total mesorectal excision in the field of rectal cancer surgery, anatomical sharp pelvic dissection has been proved to be the standard for curative treatment. The routine use of neoadjuvant radiotherapy has its peaks and folds. In the past, the rates of local recurrence and sexual/voiding dysfunction have been high. Sharp pelvic dissection decreased the recurrences to less than 10%, and the preservation rate of sexual and voiding function is high in the hands of experienced surgeon with a lot of patients per year. Understanding of pelvic surgical anatomy is a major benefit with focus on the fascial planes and nerve plexuses.
Key words: Rectal cancer, mesorectum, pelvic autonomic nervous system

Résumé

Options chirurgicales pour le curatif
La résection du cancer du rectum

Les objectifs actuels dans le traitement chirurgical du cancer du rectum sont résection curative, la préservation du sphincter anal, et la préservation des fonctions sexuelles et dela miction. La résection complète du cancer du rectum et du mésorectum environnante speuvent déterminer le pronostic des patients et de leur qualité de vie. Excision totale du mésorectum dans le domaine de la chirurgie du cancer du rectum, anatomiquesdissection pelvienne a été prouvé d'être la norme de traitement curatif. Dans le passé, les taux de récidive locale et la dysfonction sexuelle / mictionnel ont été élevés. Forte de dissection pelvienne diminué les récidives à moins de 10%, et le taux de préservation de la fonction sexuelle et la miction est élevé. Précisé technique chirurgicale de montrer les avantages lorsque l'anatomie chirurgicale est bien connue avec un accent particulier sur les plans des fascias et plexus nerveux et leurs relations aux plans de dissection chirurgicale. Une compréhension complète de l'anatomie du rectum et des organes pelviens adjacents sont essentiels pour les chirurgiens colorectaux qui veulent des résultats optimaux oncologiques et de la sécurité dans le traitement chirurgical du cancer rectal.

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Three-dimensional contrast-enhanced endoscopic ultrasound for the diagnosis of autoimmune pancreatitis

In a recent case series we discovered that patients with autoimmune pancreatitis show typical signs of hypervascularization in contrast-enhanced high mechanical index endoscopic ultrasound (CEHMI EUS) [1]. Contrast-enhanced low mechanical index endoscopic ultrasound (CELMI EUS) is a newly developed technique that should show a different contrast-enhancing effect.

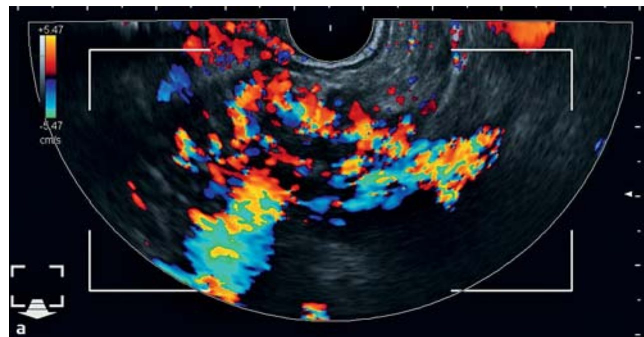
To explore the effect of CEHMI EUS (picture acquisition ▶ **Fig. 1 a** and **1 b**) and CELMI EUS, we further combined each technique with the newly developed method of three-dimensional (3D) endosonography. 3D endosonography has already been shown to improve the visualization of unenhanced gastrointestinal structures [2], and has recently been performed in combination with CELMI EUS [3]. However, 3D endosonography has not previously been done in association with CEHMI EUS or in patients with autoimmune pancreatitis.

We used the commercial platform of the Hitachi Preirus ultrasound machine in connection with a longitudinal endosonography scanner from Pentax. CEHMI EUS was performed as recently described [4]. CELMI EUS was performed with an additional injection of 4.5 mL Sonovue after the CEHMI EUS data acquisition. A 3D scan was done with each method 30 – 40 s after injection of the contrast enhancer.

The difference in vascularization with autoimmune pancreatitis compared with that in a normal pancreas was impressively shown using the 3D CEHMI EUS technique. ▶ **Fig. 1 a, b** show images acquired during 3D CEHMI EUS, in a patient with autoimmune pancreatitis and from a normal pancreas, and ▶ **Fig. 2 a, b** show the 3D reconstructions. Furthermore, 3D CELMI EUS (▶ **Fig. 2 c, d**) also provided a striking improvement in the contrast-enhancing effect in the pancreatic tissue.

Endoscopy_UCTN_Code_CCL_1AF_2AZ_3AC

Competing interests: None



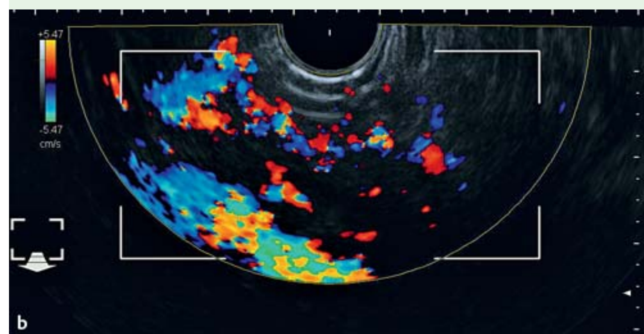
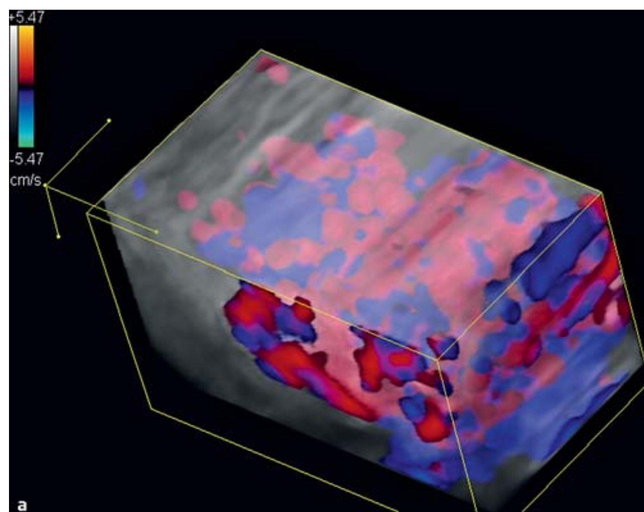


Fig. 1 **a** Acquisition of a three-dimensional (3D) image in high mechanical index color Doppler mode from a patient with autoimmune pancreatitis. The rich vascularization is clearly seen, but not as impressively as in the 3D reconstruction. **b** Acquisition of a 3D image from a normal pancreas. Normal vascularization is shown; the large vessel below the pancreas is the splenic vein.



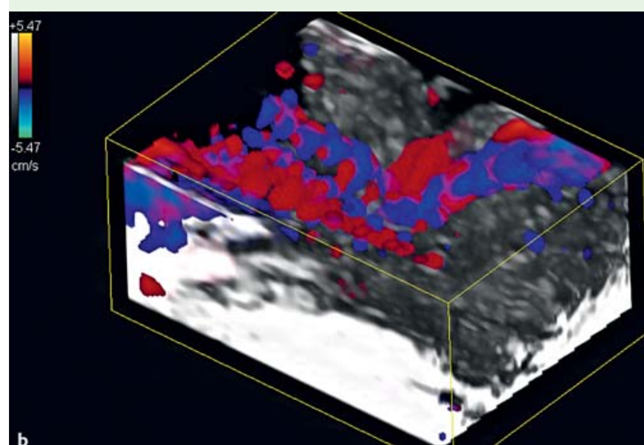


Fig. 2 **a** Three-dimensional (3D) reconstruction of contrast-enhanced high mechanical index endosonography (CEHMI EUS) images from a patient with autoimmune pancreatitis. The vascularization pattern of the pancreas is strikingly shown. **b** 3D CEHMI EUS reconstruction for a normal pancreas. While vessels can be detected with this technique their extent is, however, notably reduced compared with those seen in autoimmune pancreatitis.

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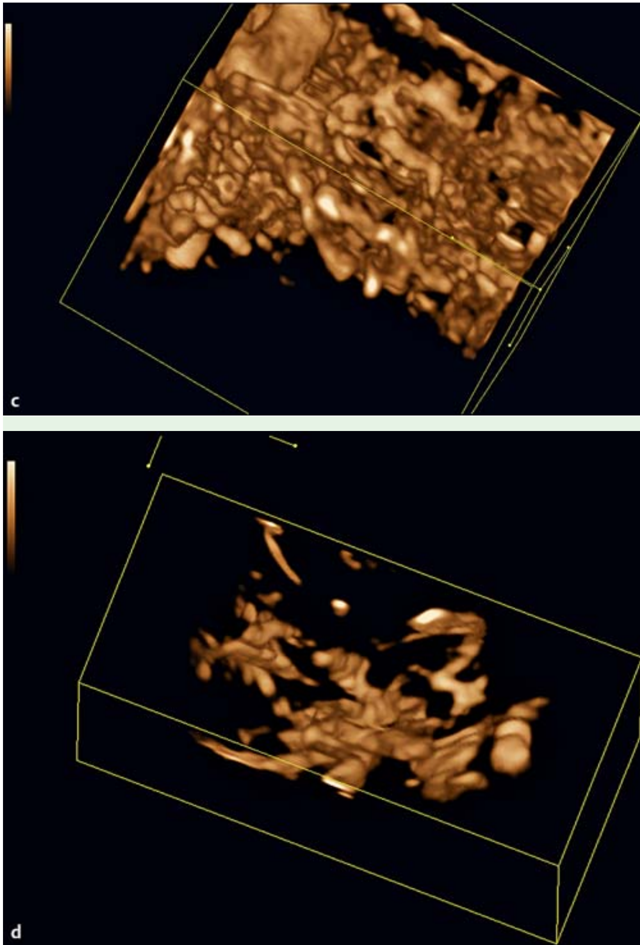

c 3D reconstruction of contrast-enhanced low mechanical index endosonography (CELMI EUS) in the same patient as in Fig. 2 a. The contrast-enhanced parenchyma of autoimmune pancreatitis is shown strikingly. **d** 3D CELMI EUS reconstruction in a normal pancreas. The contrast-enhancing effect in the pancreatic parenchyma shows a clear difference from that in autoimmune pancreatitis.

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References

1 *Hocke M, Ignee A, Dietrich CF.* Contrast-enhanced endoscopic ultrasound in the diagnosis of autoimmune pancreatitis. Endoscopy 2011; 43: 163 – 165
2 *Saftoiu A, Gheonea DI.* Tridimensional (3D) endoscopic ultrasound – a pictorial review. J Gastrointestin Liver Dis 2009; 18: 501 – 505
3 *Giovannini M.* Contrast-enhanced and 3-dimensional endoscopic ultrasonography. Gastroenterol Clin North Am 2010; 39: 845 – 858
4 *Hocke M, Ignee A, Dietrich CF.* Contrast-enhanced endoscopic ultrasound in the diagnosis of autoimmune pancreatitis. Endoscopy 2011; 43: 163 – 165

Bibliography

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OUR EXPERIENCE IN LAPAROSCOPIC ADRENALECTOMY

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BACKGROUND:

Laparoscopic adrenalectomy (LA) has become the procedure of choice to treat functioning and non-functioning adrenal tumours. With improving experience, large adrenal tumours (> 5 cm) are being successfully tackled by laparoscopy.

MATERIALS AND METHODS:

Thiry-eight laparoscopic adrenalectomies was performed for adrenal lesions during the period 2006 to 2012 were reviewed.

RESULTS:

A total of 35 laparoscopic adrenalectomies were done in 32 patients. The mean tumour size was 5.03 cm (2-11 cm). Four patients had tumour size more than 8 cm. The lesions were localised on the right side in 17 patients and on the left side in 15 patients with bilateral tumours in 3 patients. Functioning tumours were present in 32 of the 46 patients. The average blood loss was 112 ml (range 20–400 ml) with the mean operating time being 144 min (range 45 to 270 min). Three patients underwent conversion to open procedure. Three of the 32 patients (9.52%) on final histology had malignant tumours.

CONCLUSION:

LA is safe and feasible for large adrenal lesions. Mere size should not be considered as a contraindication to laparoscopic approach in large adrenal masses. Graded approach, good preoperative assessment, team work and adherence to anatomical and surgical principles are the key to success.

BILIARY DRAINAGE

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Abstract

In patients with obstructive jaundice, when the endoscopic approach fails to achieve biliary drainage, percutaneous cannulation and combined endoscopic/percutaneous endoprosthesis insertion can be performed simultaneously or in stages. This study compared these two approaches.Endoscopic retrograde biliary drainage (ERBD) and percutaneous transhepatic biliary drainage (PTBD) are the two main non-surgical treatment options for obstructive jaundice in patients with HCC. ERBD is usually the first-line treatment because of its low hemorrhage risk. Some have reported that the successful drainage rate ranges from 72 to 100%. Mean stent patency time and mean survival range from 1.0 to 15.9 and 2.8 to 12.3 months, respectively. PTBD is often an important second-line treatment when ERBD is impossible. With regard to materials, metallic stents offer the benefit of longer patency than plastic stents. The dominant effect of biliary drainage suggests that successful jaundice therapy could enhance anti-cancer treatment by increasing life expectancy, decreasing mortality, or both. We present an overview of the efficacy of endoscopic and percutaneous drainage for obstructive jaundice in patients with HCC who are not candidates for surgical resection and summarize the current indications and outcomes of reported clinical use. Traditionally, surgical techniques were used, but in the last 20 years the availability of both endoscopic and interventional radiological procedures has increased.

CONCLUSION:The technical success of the procedure depends on the experience of the Interventional Radiologist performing the drainage. It can be as high as nearly 100%. Clinical efficacy is usually lower but still over 90%. When endoscopic drainage alone fails, a combined percutaneous/endoscopic procedure should only be performed if it can be carried out simultaneously.

Introduction

Controversy exists regarding the preferred technique of PBD, either via endoscopic retrograde biliary drainage (EBD) or using antegrade percutaneous transhepatic biliary drainage (PTBD).[1] PTBD is the preferred method in Japan for relief of obstructive jaundice due to proximal obstruction. In Europe and the USA, EBD is usually performed as primary intervention and is followed by PTBD only when EBD has failed. Internal drainage by EBD, although a less invasive technique, carries increased risk of developing cholangitis due to bacterial contamination from the duodenum and increased risk of procedure related

ADRENAL ONCOCYTOMA IN CHILDREN - CASE REPORT

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ABSTRACT

Adrenal oncocytomas are usually nonfunctional and hence incidentally detected. Most of these adrenal neoplasms are benign. Functioning adrenocortical oncocytomas are extremely rare and most reported patients are between 40 and 60 years of age. We found in the literature that only several cases of functioning adrenocortical oncocytomas have been reported in childhood. We report a case of functioning adrenocortical oncocytoma in a 9 years old female child presenting with virilization. She presented with deepening of the voice and excessive hair growth, and elevation of plasma testosterone and dehydroepiandrosterone sulfate. We presented a discussion of this case, successfully managed by laparoscopic surgery.

ENDOSCOPIC RADICAL TREATMENT IN EARLY RECTAL CANCER

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BACKGROUND: The standard radical treatment for early rectal cancer includes a removal of the tumor with total mesorectal excision. There are lots of new techniques for endoscopic treatment which could shift the strategy for obtaining the postoperative results.

MATERIAL AND METHOD: We report our radical endoscopic treatment of early rectal carcinoma by endoscopic submucosal dissection. Forty five patients with early-stage rectal cancer (carcinoma in situ, T1sm1 and T1sm2) were enrolled. All of them were staged by 3-D endorectal ultrasound. All of the tumors were endoscopically removed. We observed and report only postoperative results. No oncological results were report.

RESULTS: The mean lesion size was 31.0 mm (range 19-82 mm), and the mean operating time was 86 minutes (range 48-131 minutes). Forty two lesions were resected en bloc with tumor-free margins – 92% successful rate (42/45). Three lesions were understaged or their localization in the rectum was improper for endoscopic treatment As complications we observed perforation of the rectum, occurred in 1 patient (4%), who was treated conservatively, and major bleeding, occurred in 4 patients (10%). The bleeding was stopped by endoscopic hemostasis. No systematic complications were observed. No mortality was observed.

CONCLUSION: The ESD procedure for early-stage rectal cancers is feasible and safe. The postoperative results are significantly better in comparison of radical surgical treatment. The perioperative morbidity is different as type and the postoperative period is shorter.

MULTIMODAL STRATEGIES FOR COLORECTAL LIVER METASTASES

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RESUME:

BACKGROUND: Colorectal cancer is one of the most significant malignant diseases as every year its frequency is increasing. Around 60% of the patients develop metastases, as half of them are liver limited disease. The liver mets are the main reason for death in patients with CRC. Primarily resectable are only 20-40% of the metastatic lesions. The evolution of definitions of resectability of colorectal liver metastases and the technical advances in liver surgery has led to increased number of potentially curative resection. **MATERIAL**: We present our data with 65 patients with colorectal liver metastases. **METHODS**: The modalities of treatment include chemotherapy and new surgical strategies, including portal vein embolization, ablation and staged hepatectomy. **RESULTS**: The application of the multimodal approach led to resectability of 32% from 45% of the potentially resectable metastases and 61% of the patient were radically treated. We report 41% 4-year survival rate and 35% 5-year survival rate. **CONCLUSION**: The multimodal approach has led to increased number of curative resections, higher rate of resectability and survival, without increased mortality and morbidity.

Comparative analysis of application of conventional colonoscopy and NBI colonoscopy for detection of early colorectal cancer

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Running title: conventional and NBI-colonoscopy for detection of colorectal cancer

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ABSTRACT
Purpose. Extending life expectancy is one of the major causes for increasing cancer incidence rate. The objective of the present investigation is to compare the diagnostic value of conventional and narrow band imaging (NBI) colonoscopy for the early diagnosis of colorectal cancer.
Material and methods. We examined 163 patients hospitalized in the First Clinic of Surgery, St. Marina University Hospital of Varna, for a period from 2010 to 2012 and compared the diagnostic modalities of conventional colonoscopy and NBI-colonoscopy.
Results. NBI colonoscopy with magnifying endoscopy had the potential to detect more lesions remaining not identified by conventional endoscopy. The relative share of newly-increased mucosal changes increased by 1,9 times (52%). The newly-diagnosed lesions were mostly small sized. We diagnosed by 2,7 times more lesions sized less than one mm as well as by two times, 1,7 and 1,3 times more lesions sized 1-3 mm, 3-5 mm and 5-9 mm, respectively. The method did not establish any new formations larger than one cm or more. The main part of the newly-detected lesions presented with non-specific inflammatory changes, i. e. by 9,2 times more often when compared to conventional endoscopy and represented hyperplastic/inflammatory polyps by 2-3 times more often. In four new lesions there were either an early cancer, or areas of high-grade dysplasia while in 12 ones there was a low-grade dysplasia.
Conclusion. NBI colonoscopy with magnifying endoscopy represents a reliable method for the diagnosis of small neoplasms of the colon.

Key words: conventional colonoscopy, NBI colonoscopy, colorectal cancer, diagnosis, histopathology

Introduction
The incidence rate of cancer of the colon and rectum increases with age. The incidence rate of colorectal cancer (CRC) per 100,000 individuals aged 80 years was by seven times higher than that of those aged 50-54 years (13). Extending life expectancy is one of the major causes for increasing cancer incidence rate. Morbidity in 30-year old patients is 4/100000, while in 80-year ones it reaches up to 120/100000. The most affected group of rectal cancer (RC) is aged between 50 and 70 years. The main criterion for evaluating the results after surgical treatment is five-year survival rate. For the patients in I and II clinical stage it is about 60-80%. Liver metastasis (synchronous in 35% and metachronous in 25% of the cases) remains a hardly surmountable diagnostic and therapeutic problem in RC. In our own

XII НАЦИОНАЛЕН КОНГРЕС ПО КАРДИОЛОГИЯ

Дружество на кардиолозите в България

УМБАЛ "Света Марина" - Варна

Фиброгастроскопска находка при болни със сърдечно-съдови заболявания

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Въведение

Значителна част от сърдечно-болните имат показания за прием на антиагрегант/антикоагулант, които могат да доведат до увреждане на стомашната лигавица или при налична такава да провокират кървене.

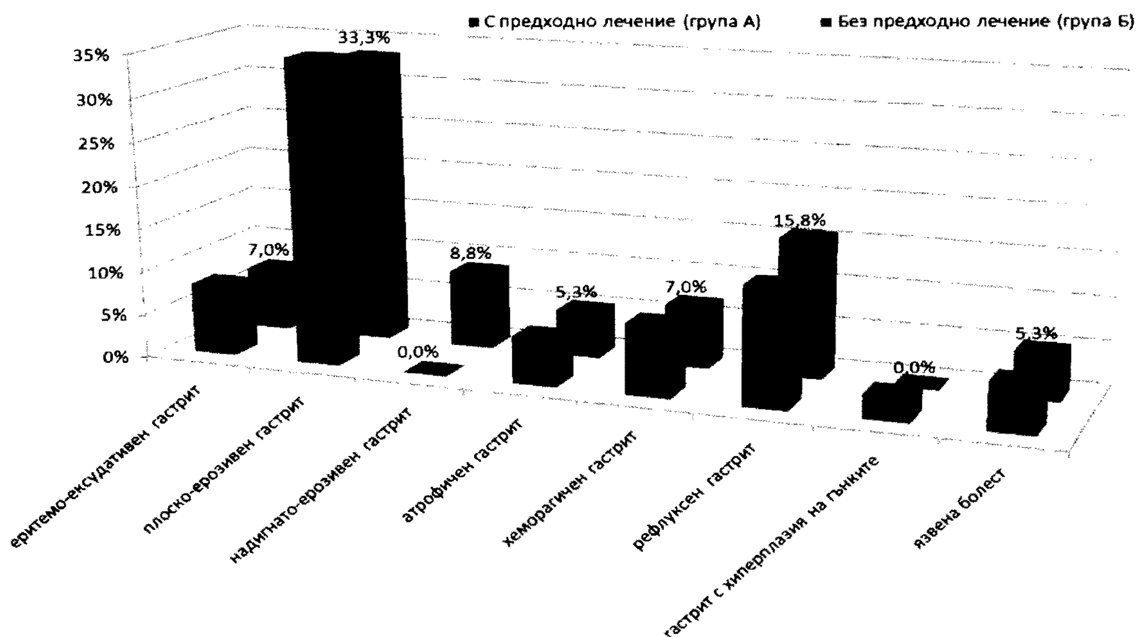
Цел

Проучването включва 94 болни (69 мъже и 25 жени), на средна възраст 68,9 ±9,8 г., приети последователно в клиника по обща кардиология;
37 съобщават за предходно лечение с аспирин/синтром (група А);
останалите 57 изследвани не са приемали аспирин/синтром (група Б).

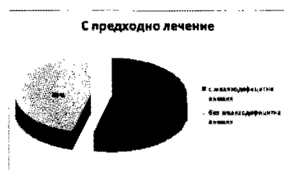
При всички болни е проведена конвенционална фиброгастроскопия (ФГС).
ФГС-находката е систематизирана въз основа на Sydney classification of gastritis.

Резултати

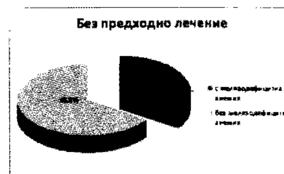
Разпределение на патологичната ФГС-находка:



Честота на желязо-дефицитната анемия:



(p < 0,05)



Изводи

intratumoral thymidylate synthase (TS), excision cross-complementing gene (ERCC1), polymorphism of uridin-diphosphat-glucuronozil-transpherase (UGT1A1) and proliferate tumor status, AChT were used: group 1A – FOLFIRI/FOLFOX (20), group 2A – 5-FU/LV (17). Control group: 1 – FOLFIRI/FOLFOX (19), group 2 – 5-FU/LV (27). All patients received 8 courses AChT. CDNA was derived from paraffin-embedded tumor specimens to determine TS and ERCC1 mRNA expression relative to the internal reference gene beta-actin using fluorescence-based, real-time reverse transcriptase polymerase chain reaction.

Results. Eighty-three resections for CRC with liver metastases performed from 2005 to 2008 (91% $\geq$2 segments) were reviewed. In all cases R0 resection of the colon cancer and liver metastases were made. Postoperative complication rate was 14%. Median survival rate not found in 1A study group; group 1–36 month, group 2A – 28 month, group 2–15 month. Three-years survival rate were 94.3 $\pm$ 7.1%; 81.3 $\pm$ 7.8%; 43.3 $\pm$ 8.4%; 13.3 $\pm$ 6.9% respectively in group 1A, 1, 2A, and 2.

Conclusions. It is possible to personalize the adjuvant treatment and improve survival rate of the CRC patients with liver metastases using the molecular tests.

P42

Liver resections in colorectal metastases – our experience

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Background. The surgical intervention is the only opportunity for curative treatment in long term manner in patients with liver mets from colorectal cancer and in combination with the multimodal approach increase the 5 year survival rate to 30–40%.

Methods. We report and evaluate the patients, underwent liver resection by colorectal liver metastases in 1st Clinic of Surgery, University Hospital "St. Marina", Varna, Bulgaria, for the period of 2008–2010. We have adopted the ESMO-standards for multimodal approach in patients with IV Stage colorectal cancer.

Results. We have operated 32 patients. Radical liver resection with R-0 resection margins were obtained to all of them. Major hepatic surgery were undertaken in 12 patients – right hepatectomy in 3 patients, extended right hepatectomy in 2 patients, left hepatectomy in 3 patients, and three segmentectomy in 4 patients. In 8 patients an atypical liver resection was done. We faced local complications as: ascites in 5 patients, temporary suspended liver function, and thrombosis of portal vein in one patient. General complications were observed as followed: in 1 patient – pneumotorax, in 3 patients symptomatic pleural edema. We didn't observe any perioperative mortality. The survival rate were followed for a period from 3 to 18 months, all the patients were evaluated by PET-CT. We found progression in 2 patients, who underwent re-resection.

Conclusions. It is very important to be strictly followed the accepted standards for treatment. The presence of PET CT is a must for adequate surveillance of patients with colorectal cancer.

P43

Selective Pringle maneuver at resection of liver metastases

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Background. Selective Pringle maneuver involves temporary occlusion of Portal vein and proper hepatic artery lobar branch. Lobar branch occlusion is performed with a lobe in which resection is performed. In the other lobe normal circulation is present.

Methods. The procedure involves dissection of hepatoduodenal ligament, elements preparation, and separation of Portal vein and proper hepatic artery lobar branches. Compared to nonselective occlusion maneuver there is no obstruction of bile duct. Occlusion is performed after the deliberization of liver ligaments, before the initiation of planned resection. If the procedure is performed correctly, Cantle's line, which is a surgical border between left and right lobe, can be visible. After that anatomic or extraanatomic liver resection is performed with CUSA.

Results. With 14 patients the aforementioned selective occlusion was performed. With 11 patients the metastases were in the right lobe and in 3 patients in the left one. With 5 patients one segment resection was performed, with 3 patients resection of two segments performed, and in the other resection of metastases was performed. The number of metastases ranged from 1 to 4. Plan for resection is based on angioCT report which shows the relationship between liver vascular elements and metastases. Plan for resection is also made based on intraoperative ultra sound.

Conclusions. Selective Pringle extends the time of occlusion and by that makes resection easier. This process enables normal blood circulation in one of the lobes. Central portal vein pressure is lower and by that there is lower intestinal venous congestion. Maneuver requires careful preparation of hepatoduodenal ligament elements, as well as a trained surgical team.

O-36

FUNCTIONAL DYSFUNCTION AFTER RADICAL SURGERY FOR RECTAL CANCER - INTRAOPERATIVE ELECTROPHYSIOLOGICAL CONFIRMATION OF NERVE PRESERVATION

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Functional dysfunctions after radical rectal surgery are developed by a wide range of causes. There is, however, general consensus that intraoperative injury to autonomic nerves represents the principal cause of postoperative incontinent dysfunction of pelvic viscera. From July 2010 to October 2011, four patients underwent partial (PME) and 58 patients total mesorectal excision (TME) with monitoring of nerve preservation using intraoperative electrical stimulation of pelvic autonomic nerves. Forty-six patients with INS-confirmed preservation of parasympathetic nerves remained unchanged in early pelvic organ function. In 16 patients without confirmation of PANP (unilaterally or bilaterally) on INS, voiding function was significantly more impaired postoperatively and at longterm follow-up. Voiding function was improved in 4 of 10 patients with unilateral confirmed damage. In 5 of 6 patients with bilateral intra-operative damage dysfunction syndrome persists in the early postoperative period. Online signal processing by intraoperative electrical stimulation of the pelvic organs after radical rectal surgery for rectal carcinoma aids reliable identification of pelvic autonomic nerves with potential for improvement of sphincter sparing surgery.

O-37

PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOURS AMONG OBESE PREPUBERTAL CHILDREN

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Objective: To investigate the relationships of physical activity (PA) and sedentary behaviours (television (TV) viewing and computer use) with the presence of abdominal obesity in healthy prepubertal children. **Material and methods**: A case-control study of 168 healthy children (78 males; mean age 8.1 ±1.2 years) was conducted. Body weight, height and waist circumference (WC) were measured; BMI was calculated. Children were divided into three groups according to the WC percentiles for Bulgarian children as a measure of central obesity ("normal-WC", 31.5%; "children-at-risk", 27.4% and "abdominally obese", 41.1%). A structured parental interview was used to obtain data about children's physical and sedentary behaviours. **Results**: No significant difference was found in the frequency and duration of PA among the WC categories (p >0.05). More than 58% of the parents reported the presence of a seasonal difference in children's activity with higher mean PA levels during the spring/summer months. This seasonal behaviour was significantly more frequent among the abdominally obese children compared to the normal-WC group (68.1% vs. 47.1%, p =0.04). Children spent an average of 2.7 ±1.2 h/d watching TV and 0.9 ±1.0 h/d in using computers. Although insignificantly, the abdominally obese children spent more hours a day in front of the TV sets and computers compared to their normal-WC counterparts (2.8 ±1.3 vs. 2.6 ±1.0 and 0.9 ±1.0 vs. 0.6 ±0.9 h., respectively, p >0.05). Boys from all WC-groups used computers more often than girls (1.1 ±1.0 vs. 0.7 ±0.9 h/d, p =0.05). **Conclusion**: Physical inactivity may be associated with the excess accumulation of abdominal fat mass in prepubertal children, which warrants further investigations.

PO.116 Piggy back method – advances and features
Nicola Vladov (Bulgaria)

PO.117 Liver resection for liver metastases from colorectal cancer
Nikola Kolev, K.Ivanov. V. Ignatov, A. Tonev (Bulgaria)

PO.118 Two case reports of malignant melanoma of the esophagus performed surgical resection after systemic chemotherapy including local injection of interferon beta
Norihiko Sugisawa (Japan)

PO.119 Modified FOLFIRI (l-LV, 5-fluorouracil and irinotecan) therapy for Japanese patients with metastatic colorectal cancer
Norio Yukawa (Japan)

PO.120 large duodenal GIST tumour presenting with acute bleeding managed by Whipple resection
Norman Oneil Machado (Oman)

PO.121 Neutropaenic enterocolitis post chemotherapy for carcinoma of the breast
Norman Oneil Machado (Oman)

PO.122 The choice of the method of operation in surgical treatment of complicated megacolon.
O. Gibradze, B. Mosidze, D. Tevdoradze (Georgia)

PO.123 The Accuracy of the Surgical Diagnosis of Serosal Invasion by Gastric Carcinoma and its Affecting Factors
Oh Jeong (Korea)

PO.124 Evaluation of clinical and evolutive features of postoperative external duodenal fistulas
Padureanu Sergiu (Romania)

PO.125 Toxic advanced glycation end-products in hepatocellular carcinoma
Park Kyung Hwa (Japan)

PO.126 LigaSure device for hepatic resection
Patrlj Leonardo, Kopljar Mario (Croatia)

PO.127 An epithelial cyst in an intrapancreatic accessory spleen: a case report.
Pohnan R, Ryska M, Dolezel R (Czech Republic)

PO.128 Isolated complete avulsion of the gallbladder. Near traumatic cholecystectomy.
Psarras K, Lalountas MA, Paulidis TE, Symeonidis NG, Tsitlakidis A, Paulidis ET, Sakantamis AK. (Greece)

PO.129 Inadvertent insertion of a nasogastric tube into the brain. Case report and review of the literature.
Psarras K, Lalountas MA, Symeonidis N, Baltatzis M, Ballas KD, Paulidis TE, Sakantamis AK. (Greece)

PO.130 Cystic lymphangioma of the pancreas
Psarras K1, Lalountas MA1, Ballas KD1, Symeonidis NG1, Rafailidis SF1, Paulidis TE1, Koukoulis G2, Sakantamis AK1. (Greece)

PO.131 Serum insulin like growth factor-1 (IGF-1), insulin like growth factor-2 (IGF-2) and insulin like growth factor binding protein-3 (IGFBP-3) as parameters in the assessment of liver dysfunction in patients with hepatic cirrhosis and in the diagnosis of hepatocellular carcinoma.
Rania Naguib Abdel Mouteleb (Egypt)

PO.132 ABO-Incompatible living donor liver Tx and the need to perform such procedures in the Western countries
Roberto Troisi (Belgium)

PO.133 Morbidity and mortality after minor and major laparoscopic liver resections
Roberto Troisi (Belgium)

PO.134 Volumetric and Morphlogical Analysis of Intraductal Papillary Mucinous Neoplasm of the Pancreas (IPMN) by using Computed Tomography (CT) and Magnetic Resonance Imaging (MRI)
Saijiro Murayama (Japan)

PO.135 Pancreaticoduodenectomy and multiorgan en-bloc resection with graft reconstruction of IVC leiomyosarcoma
Sang Tae Choi (Korea)

PO.136 Clinical features of pneumocystis carinii pneumonia in adult liver transplant recipients
Seonok Oh (Korea)

bowel obstruction causes severe perioperative complications in colorectal cancer patients. Purpose & Patients: The aim of this study is to evaluate clinical outcomes of surgery for colorectal patients with bowel obstruction. From 2000 to 2006, fifty four colorectal patients with bowel obstruction underwent emergency operation (n=12) or preoperative intestinal decompression for elective surgery (n=42) in our institution were included.Results: In twenty nine of 42 patients, decompression treatment was achieved for bowel obstruction safely, but in 13 patients conversion to emergency operation because of complications, specifically perforation or unsuccessful decompression. Postoperative complications occurred in 24% and its rate was higher in emergency operation (44%vs7%). Also, twenty four (82%) out of 29 patients with elective surgery could avoid creating stoma, and the rate was lower than that in patients with emergency operation. The hospitalization after surgery was shorter in elective surgery significantly (p=0.0254). Regarding with oncologic results, recurrence developed in 48% (n=15) in stage II and III 31 colorectal patients, and most of them were the hematogenous metastasis. The overall 5year survival rates were 61.2% and the five-year relapse-free survival rates were 34.8%.Conclusion: Preoperative decompression treatment for bowel obstruction was useful to prevent postoperative complications. Presence of preoperative obstruction proximal to colorectal cancer may be a risk factor of prognosis in colorectal cancer patients.

POSTER

P063

ONE CASE OF THE PROGRESS COLORECTAL CANCER WITH A KRASP.G13D VARIANT TREATED EFFECTIVELY WITH FOLFOX + CETUXIMAB

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Cetuximab (Cmab) specifically binds to epidermal growth factor receptor (EGFR), and it is one of the molecular target anticancer drugs inhibiting a work of EGFR, but it is said that the adaptation case is only a KRAS wild type. However, reports that antitumor effect of Cmab in the KRASp. G13D variant is found in late years.We report our experience with the unresectable progress ascending colon cancer case that FOLFOX + Cmab had a complete response to in a KRASp. G13D variant case. <case> 65 years old, women <clinical history> She was noted granular shadow to both lung fields by the chest X-ray examination of the medical examination, and visited in our hospital , respiratory internal medicine. Examination showed greater tubercle in the left main bronchus, and multiple nodules in both lung fields. Also, ascending colon had a mass which was impossible of fiber passage, she visited with introduction consultation to our department. As a result of close investigation, we started FOLFOX4 therapy by a diagnosis of an ascending colon cancer and the multiple metastases to lung.We used Cmab with FOLFOX4 therapy because an examination for KRAS was wild type but p.G13D variant. We assessed the outcome of treatment after the FOLFOX4 therapy (once) & FOLFOX4+ Cmab therapy (six times). Because loss of the lesion of an ascending colon and the left main bronchus nucleus was detected, we performed right hemicolectomy after FOLFOX4+ Cmab therapy twice addition.We reported experience that FOLFOX4+ Cmab therapy had a complete response though KRAS variants.

P064

NEW METHODS FOR INTRAOPERATIVE EVALUATION IN THE RADICAL RECTAL CANCER SURGERY

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Patients with low rectal cancer represent a staging and therapeutic challenge as the surgeon needs often to balance the competing requirements for an oncologically sound procedure with the desire to perform a sphincter sparing operation with appropriate functional outcome. This could be possible if a multidisciplinary team is involved as accurate preoperative imaging and diagnosis, routine use of neoadjuvant therapy and reassessment. This approach will help to optimize the individual function and outcome of the patients. While we should always strive to offer a patient sphincter saving surgery, a technically proficient but functionally poor result may not be in the best interests of the patient. Those with very low rectal tumors who undergo neoadjuvant therapy and a low strait stapled or coloanal anastomosis have a high incidence of the functional symptoms of low anterior resection syndrome. The nerve sparing surgery does not have standards for intra operative evaluations and rely only on postoperative follow-up. It is interesting to note that according to literature, around 24 percent of the patients at follow-up reported incontinence with a mean Wexner score of 15. New methods as intra operative nerve mapping and stimulation are developed and their role is investigated in prospective trial.

carcinoma undergoing preoperative intestinal drainage.Methods. A total of 803 consecutive stage I-IV colorectal cancer patients were undergoing intent colectomy between 2000 and 2010. The patients were selected into two groups: obstruction with advanced colorectal carcinoma group (OCRC), which included 87 patients undergoing colectomy with preoperative intestinal drainage, and a Non-obstructing advanced colorectal carcinoma group (CRC), which included those 511 patients undergoing colectomy alone. Morbidity, mortality, and prognosis were assessed. Results. In the drainage methods of OCRC group, long nasointestinal tube drainage was 30 patients (34.5%), or transanally inserted tube drainage was 14 patients (16.1%), drainage of colostomy was 43 patients (49.4%). The mortality rate was 0% in the OCRC group and 0.4% in the CRC group (2 of 511 patients). The morbidity rate was 43.7% in the OCRC group (39 of 87 patients) and 37.2% in the CRC group (190 of 511 patients). The 5-year overall survival rate was 69.5% in the OCRC group and 72.9% in the CRC group [hazard ratio 0.76 (95% confidence interval 0.35 to 1.16; P=0.48)], No statistically significant survival differences were observed in survival between the two groups in stage II, III, IV and over all.Conclusion. Intestinal obstruction with advanced colorectal carcinoma undergoing preoperative colonic drainage is safety and no survival inferiority.

POSTER

P093

THE PREDICTION OF DIFFICULTY OF LAPAROSCOPIC SURGERY AT RECTAL CANCER BY THE PELVIMETRY USING 3D-CT IMAGE

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Introduction: Recently, adaptation of operation using a laparoscope for advanced colorectal cancer has been expanded by the progress of laparoscopic surgery. However, we often suffer from the rectal cancer operation, exfoliation around the rectum and anastomosis inside narrow pelvis. Therefore it is useful to distinguish the narrow pelvis before laparoscopic rectal operation when we ascertain operation indication and safety. So we performed pelvimetry using 3D-CT and examined the utility and connection with the complication.

Materials and methods: From January, 2008 to March, 2011, 81 cases of rectal cancer have been performed laparoscopic anterior resection or intrasphincteric resection in our institution, and we measured the obstetric conjugate, sacrum length, pelvic outlet, transverse distance, and interspinous distance of the small pelvis with CT. And we examined the clinicopathologic examination in sex, Body Mass Index, tumor diameter, distance from anus, rate of conversion to open surgery, operation time, bleeding amount, number of stapling, and postoperative complication.

Result: Among 81 cases, male were 50 cases and female were 31 cases. As for man, the pelvic cavity was significantly deep and narrowly in comparison with woman in pelvimetry. Complications of anastomotic leakage and conversion to open surgery were 15 (18.5%) and 10 cases (12.3%), and male were 12 (80%) and 9 cases (90%) of all. Multivariate analysis showed that tumor distance from anus ($p = 0.012$), obstetric conjugate ($p = 0.014$), and sacrum length ($p = 0.017$) were independently predictive of operative time. Others, the distance from anus, and number of stapling were related to anastomotic leakage.

Conclusion: As for the man, pelvis is narrower in comparison with the woman, and the man with narrow pelvis and shorter tumor distance from anus have difficulty to staple and higher risk of complications of anastomotic leakage and open conversion.

P094

LAPAROSCOPIC INTERSPHINCTER RESECTION FOR RECTAL CARCINOMA

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BACKGROUND: Laparoscopic approach has been reported to be one of the standards for total mesorectal excision in rectal cancer surgery. Intersphincteric resection (ISR) has been reported as a promising method for sphincter-preserving operation in selected patients with very low rectal cancer. METHODS: We underline the important surgical issues surrounding the management of patients with low rectal cancer indicated to laparoscopic intersphincteric resection (ISR). From January 2007 till now, 32 patients with very low rectal cancer underwent laparoscopic TME with ISR. We report and analyze the results from them RESULTS: Conversion to open surgery was necessary in one (3%) patient. The median operation time was 273 min and median estimated blood loss was 110 ml. There was no mortality. Postoperative complications occurred in five (15%) patients. The median length of postoperative hospital stay was 7.2 days. Macroscopic complete mesorectal excision was achieved in all cases. Complete resection (R0) was achieved in 31 (93%) patients. CONCLUSIONS: Laparoscopic ISR is technically feasible and a safe alternative to laparotomy with favorable short-term postoperative outcomes when the surgical team have sufficient experience.

mass in the right hepatic lobe by abdominal ultrasonography examination. The result of examination revealed a hepatic tumor with a tumor thrombosis in the right portal vein and rectal carcinoma. Therefore, we performed a concomitant surgery which was abdominoperineal resection and right hepatic lobectomy with tumor thrombectomy. Each of pathological findings of resected specimen of the rectum and right hepatic lobe showed a moderately differentiated adenocarcinoma. Consequently, we diagnosed the rectal carcinoma and metastatic hepatic tumor with the portal vein tumor thrombosis. **Result:** Our patient remains healthy with no evidence of recurrence 4 months after the surgery, and have been commuted to us hospital to treat adjuvant chemotherapy. Furthermore, CEA and CA 19-9 decrease to normal range 4 months after the surgery. **Discussion:** We argue that operating simultaneously them should be selected for preventing cavernous transformation of the veins, intestinal bleeding, and ascites, if the patient does not present multiple metastases. It is necessary to receive early adjuvant chemotherapy to prevent metastatic tumor of the lung.

1P-88

FEATURES OF RECURRENCE-FREE SURVIVAL FOR MORE THAN 10 YEARS AFTER LIVER RESECTION FOR HEPATOCELLULAR CARCINOMA

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Background: Long-term recurrence-free survival after curative resection for hepatocellular carcinoma (HCC)is difficult to achieve. We investigated the characteristics of recurrence-free survival for more than 10 years after liver resection for HCC. Methods: A total of 149 patients underwent curative resection for HCC from 1990 to 2001. We investigated the clinicopathologic findings of patients with 10-year recurrence-free survival (group A, n=23) and patients who had tumor recurrence within 10 years of resection (group B, n=126). Results: A log-rank test revealed that male, low activity of aspartate aminotransferase (AST), Child-Pugh score A, presence of hepatitis B surface antigen, absence of anti-hepatitis C virus antibody, a single tumor, and absence of liver cirrhosis were associated with a significantly higher tumor-free survival rate. By multivariate analysis, presence of multiple tumors (RR=7.96, 95% CI=1.40-150.80), and liver cirrhosis (RR=5.34, 95% CI=1.12-42.17) were identified to be independent risk factors for HCC recurrence. By logistic regression, presence of a single tumor (p value=0.0135), and absence of liver cirrhosis (p value=0.0319) were identified to be independent factors for recurrence-free survival for 10 years. Conclusion: Presence of a single tumor and mild liver fibrosis were closely associated with long-term recurrence-free survival. Early detection of the HCC and preventive treatment for liver fibrosis are important to reduce recurrence of HCC.

1P-89

A CHANGE OF THE STRATEGIES IN LIVER SURGERY IN IV STAGE METASTATIC COLORECTAL CANCER

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With recent advances in chemotherapy, traditional clinicopathological factors should not be used to exclude otherwise resectable patients from surgery. Pathological or clinical response to chemotherapy has become valuable in determining the treatment for individual patients. Portal vein embolization and two-stage operation with ablative therapy and preoperative chemotherapy should be considered for unresectable liver metastases located in a liver remnant that is at the minimum volume required for survival. The recent EORTC 40983 trials regarding preoperative chemotherapy for resectable CLM have failed to demonstrate a clear significant advantage. However, patients with a low clinical risk score for the recurrence, such as several metastases of less than 4 cm, and who are fit candidates for liver resection are often offered immediate surgery. Patients at high clinical risk should also be considered for neoadjuvant chemotherapy. One forthcoming and appealing strategy is to adapt postoperative treatment according to tumor response as evaluated by neoadjuvant chemotherapy or by the presence of individual tumor biomarker such as the Kras mutation or single-nucleotide polymorphisms. This could avoid the overtreatment of nonresponsive patients and enable a more tailored approach to treat an individual patient disease. The treatment paradigm for CLM is rapidly changing with the development of newer anticancer chemotherapeutic agents.

1P-90

A CASE REPORT OF SUCCESSFUL RIGHT LOBECTOMY FOR SEVERE BLUNT HEPATIC TRAUMA: BASED ON EXPERIENCE OF 183 CONSECUTIVE HEPATIC TRAUMA CASES

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Introduction: Liver trauma is the main cause of death of patients with severe abdominal injuries. We report a case of successful right lobectomy for severe blunt hepatic trauma.
Case presentation: A 38-year-old woman was transferred to emergency room. She had a traffic accident and was hemodynamically unstable on arrival. After initial tesuscitation, it transiently turned into stable, however it gradually hemodynamically unstable again. During stable status,

Background. Rectal cancer (RC) rate increases. According to the Bulgarian National Cancer Registry in 2010 are registered 1893 new patients. RR is characterized with specific diagnostic and treatment. Neoadjuvant radiotherapy is a standard in the complex treatment of the T3 tumors, leading to reduction of the local recurrence rate. Laparoscopic anterior resection is accepted as a standard in some European and Asian countries, despite some controversial data. There is no significant difference in the 5 year overall survival rate between laparoscopic an open group. Laparoscopic surgery for RR is characterized with more frequent infiltration of the circumferential margin, compared to the open surgery. There is no difference in survival between these two groups. Increased perioperative mortality and worse 5 year survival is found in patiens with conversion from laparoscopic to open operation.

Methods. For the period 2008-2012 in Clinics of Surgery of MMA and Eurohospital Plovdiv—120 patients with RC undergo surgery—68 (56 %) for distal cancer and 52 (44 %) for cancer in the upper third of the rectum. 78 open and 42 (35 %) laparoscopic resections are performed. Patients with distal rectal cancer undergo 28 (41 %) mini-invasive procedures and 40 open resections. Laparoscopic resections are divided in three groups (low anterior resections—12, ultralow anterior resections with colo-anal anastomosis—8, video-assisted rectal amputations 8). All patients undergo neoadjuvant therapy.

Results. We have 3 patients with complete pathoanatomical response after neoadjuvant chemoradiotherapy. We don't find infiltration of the circumferential margin after laparoscopic or open resection. R1 involvement in 2 patients after open and 1 after laparoscopic resection. The laparoscopic anterior resection is characterized with lower blood loss (160 vs. 250 ml), longer operation time (190 vs. 130 min), faster recovery of the bowel function and shorter hospital stay (6 vs. 9 days).

Conclusions. Laparoscopic rectal surgery is successful alternative of the open procedure, leading to similar long-term results. When performed after neoadjuvant therapy from trained laparoscopic team it leads to low rates of conversion and circumferential margin infiltration, slighter pain and faster bowel function recovery.

P43

Outcomes of laparoscopic primary tumor removal for disseminated colon cancer

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Background. The primary tumor resection, even in patients with synchronous multiple metastases in the liver and/or other organs, allows to increase two-year survival in comparison with symptomatic operations (colostomy or bypass). Adjuvant chemotherapy after cytoreductive surgery may improve the results of a two-year survival. The laparoscopic precision technique may minimize the surgical complications and to shorten the time to chemotherapy. It could helps to optimize treatment strategy and to expand the indications for cytoreductive operations, especially for elderly patient.

Aim. The aim of the study is to determine the role of laparoscopic cytoreductive surgery in combined treatment for patients with colon cancer and synchronous distance metastases.

Methods. Forty four patients (30-80 years old) underwent laparoscopic primary tumor removal: T_2-2 and T_3-42 patients, metastases in one organ (M_{1a}) were diagnosed in 37, two or more organs (M_{1b})-7 patients. Right hemicolectomy underwent 9 patients, left hemicolectomy-3, sigmoidectomy-24, rectal resection-3, and Hartman's procedure-5. The preoperative complications of the primary tumor were detected in 31patients (bleeding-12, obstipation-14, toxicemia-7). Simultaneous R_0 resection performed in 2 patients, staged resection-10.

Results. The postoperative complications were diagnosed in 2 (4.55 %) patients (1-anastomosis leakage, 1- mesenteric ischemia) that is 2 times less as compared to open surgery. The average hospital stay in the clinic was 7 days. The time to start the chemotherapy reduced since 30 days after open surgery up to 14 days after laparoscopic procedure. The 2-year survival results after open and laparoscopic surgery were comparable: 69.5 % after laparoscopic and 61.5 %-after open surgery, $p=0.97$.

Conclusions. The laparoscopic surgery can be included in combined treatment scheme for disseminated colon cancer especially for elderly patients.

P44

Early rectal cancer—endoscopic radical treatment

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Background. The standard radical treatment for early rectal cancer includes a removal of specimen with underwent total mesorectal excision. Some new techniques for endoscopic treatment could shift the strategy for obtaining the postoperative results.

Methods. We aim to proof the validity of radical endoscopic treatment of early rectal carcinoma by ESD procedure. Forty patients with early-stage rectal cancer (carcinoma in situ, T1sm1 and T1sm2) were enrolled. All of them were staged by 3-D endorectal ultrasound and endoscopicaly treated.

Results. The mean lesion size was 33.0 mm (range 19-82 mm), and the mean operating time was 82 min (range 48-131 min). Thirty-seven lesions were resected en bloc with tumor-free margins—92 % successful rate. Perforation occurs in 2 patients (5 %), which were treated conservatively. Major bleeding after ESD occurs in 4 patients (10 %) and was stopped by endoscopic hemostasis.

Conclusions. This ESD procedure for early-stage rectal cancers is feasible and safe. The postoperative results are significantly better in comparison of radical surgical treatment. The perioperative morbidity is different as type and the postoperative period is shorter.

P45

Endoscopic recanalization of tumor in treatment of rectal cancer complicated by large bowel obstruction

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Methods. In this study 48 patients were included with CRC and liver metastases. In all patients surgery of primary CRC and liver metastases was performed. Patients were divided into two groups. Patient who had same time surgery of CRC and liver metastases, and patients who had surgery of CRC at first and after neoadjuvant chemotherapy liver metastases were operated. Patients who had disease progression after chemotherapy were not included in this study.

Results. In 29/48 patients the same time surgery was performed for primary CRC and liver metastases. All of these patients had adjuvant chemotherapy after surgery. In 19/49 treatment started with resection of primary tumor and after neo adjuvant chemotherapy was applied in combination with biological therapy. By applying those therapies, possible resectable liver metastases were converted to resectable metastases. After that liver resection was performed. Survival in 3 year period in first group was 62 % (18/29) and in second group 58 % (11/19).

Conclusions. Multidisciplinary oncological approach is necessary in treatment of patients with CRC and liver metastases. By applying neoadjuvant chemotherapy initially nonresectable liver metastases we convert to resectable and survival rate is almost the same as patients in earlier stadium of disease.

P22

The "modern" technique of abdominoperineal resection of the rectum is in fact so old

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The "modern" technique of abdominoperineal resection, described by F. Mouvais et al. in Journal de Chirurgie Visceral vol. 148, nr. 2, 2011, considered essential to performe a cylindric excision and the TME after Heald. The schema of cylindric excision of the rectum is the same with that published by Victor Pauchet in 1931 in Paris, after Miles.

An earlier description of the APR is made by Quenu at the XII French Congress of Surgery, Paris 17-24 oct 1898. A similar technique is described by M. Guibe and Jean Quenu in "Chirurgie de l'abdomen" Masson Ed., Paris 1930, and by John Bruce and Robert Walmsley in "Beesley and Johnoston's Manual of Surgical Anatomy", Oxford University Press, 1939.

So that the "modern technique" of abdominoperineal resection is real old indeed.

Conclusion. We must not forget our history of surgery.

P23

Surgical treatment of liver metastases (LM) from colorectal cancer (CRC). Influence of age on the postoperative results

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Background. Because of the ageing of the population, 25 % of Europeans will be over 65 years old in 2030. In this age group malignancies are the second leading cause of death and the leading cause for morbidity. 76 % of patients with newly diagnosed CRC are between 65 and 85 years of age. CRC is the second leading cause of death among malignancies. According to data from Bulgarian NCR there are 4418 newly diagnosed cases for 2006, and 2882 (65 %) of them are over 65 years old. Liver metastases occur in 28-50 % of all patients. Radical liver resection is the only curative option. Assessment of the benefits vs. risk of surgical resections of CRC LM in elderly patients in the past gave reason surgical treatment to be performed only in single cases. The advancement of surgical technique, modern anesthesiology and intensive care make the liver resection today a safe procedure with low morbidity and mortality of only 0-11 % irrespective of age.

Methods. For the period 01.03.2009- 31.12.2012 in the Clinic of Surgery at the Military Medical Academy and Eurohospital, Plovdiv, Bulgaria, 84 patients undergo surgery for CRC LM. 53 (63 %) of them are over 65 years. Radical surgery was performed in 41 (49 %) cases, 28 (69 %) of them are >65 years. The following procedures are performed—right hemihepatectomy in 6 patients, left lateral sectionectomies—4, two stage resection—1, bisegmentectomies—3, segmentectomies—9, metastasectomies—5. Simultaneous resections were performed in 11 elderly patients (40%). The radical operations in patients<65 are 12 (39 %). 4 of them are simultaneous resections: one anterior resection with coloanal anastomosis and left lateral sectionectomy; left hemicolectomy with left lateral sectionectomy; anterior resection with segmentectomy VI, metastasectomy in SVII and para-aortic lymph node dissection; anterior resection with multiple metastasectomies. In 8 cases metachronous metastases are resected: one right hemihepatectomy; one right lateral trisectionectomy after right portal branch ligature and rectum amputation; three left lateral sectionectomies; three segmentectomies with metastasectomies.

Results. Complications are registered in 6 patients over 65 (11.3 %) (biloma; anastomotic leak with peritonitis; stress-ulcer GI bleeding; infected bile collection with peritonitis; hemorrhagic shock) and in 3 patients under 65 years (9.7 %) (internal pancreatic fistula with operative wound suppuration; biloma). Perioperative mortality is 1.2 % (one patient in the>65 group).

Conclusions. Age is not a limiting factor for radical treatment of CRC LM. Regardless of the significantly larger number of comorbidities in elderly patients, liver resections can be performed successfully with a postoperative complications rate comparable to those of patients under 65 years.

P24

Multimodal strategies for colorectal liver metastases

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Background. Colorectal cancer is one of the most significant malignant diseases as every year its frequency is increasing. Around 60 % of the patients develop metastases, as half of them are liver limited disease. The liver mets are the main reason for death in patients with CRC. The surgical resection is the most effective treatment

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mesorectum excision is performed. The dissection reaches the peritoneal reflection. Splenic flexure mobilization and incision of the peritoneal reflection are performed by laparoscopy. The specimen is usually removed by mini laparotomy and in favourable cases it can be removed transanally. Frozen-section histology will evaluate the margins. The colon is pulled out through the anus to perform colo-anal anastomosis. Diverting ileostomy is carried out.

Preliminary results. The technique of ETATMR was developed in four cadavers. From October 2008 ETATMR by TEM was performed in eight patients with rectal cancer (5 males, 3 females, median age 66 years, range 41-77). Seven patients underwent neoadjuvant radiochemotherapy (nRCT) and one patient (T3N0) with recurrent rectal cancer after local excision received adjuvant radiochemotherapy. Final staging was pT3N1 (1), pT3N0 (1), pT2N0 (4), pT0N0 (1), pT0NX (1). Mean tumor diameter was 3 cm (range 1-5 cm). Mean tumor distance from the anal verge was 2.9 cm (range 2-4 cm). In five patients a protective ileostomy was performed. Mean operative time was 450 min (range 360-600 min). No severe intraoperative complication occurred. Postoperative complications included anastomotic leakage (3) and temporary urinary incontinence (1). Mean hospital stay was 16.6 days (range 9-22 days). Late complications included anastomotic stenosis (2) and recto-vaginal fistula (1) treated by stent.

Conclusions. ETATMR by TEM seems to be a safe and effective approach for the treatment of low rectal cancer. Adequate experience in ELRR by TEM is mandatory.

P50

Intraoperative evaluation of pelvic autonomic nerves in rectal cancer surgery

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The radical treatment of rectal carcinoma includes resection in clear margins and total mesorectal excision (TME) which is called "gold standard". The aim is to achieve low incidence of local recurrence and hopefully no distant metachronous metastases. The clear margin rule includes excision to the level of pelvic floor and the rectum has to resected as 1 sm below the tumor. These conditions could be breached and the chance of visceral pelvic fascia tearing is raised and mesorectal tissue might reside in the pelvis. There are some problems in quality control of auditing the procedure. Anatomically, the autonomic nerves run between the visceral and parietal pelvic fasciae since the nerves must be preserved to make visceral fascial envelop. All of the surgeons try to obtain nerve-preserving surgery but some patients become incontinent or impotent. There is a need an accurate tool for intraoperative evaluation of nerve status—a tool for intraoperative pelvic nerve mapping. Intraoperative stimulation resulted in significantly increased amplitudes of the time-based electromyographic signal of the IAS, confirming nerve preservation.

P51

Management of tissue defects after total pelvic exenteration

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Total pelvic exenteration (TPE) is the only curative procedure in advanced pelvic cancer and in massive local recurrences. TPE leaves a major defect in pelvico-perineal region. The remaining pelvic dead space and the absence of the perineal support result in many postoperative complications. Delayed healing, bowel fistulae, occlusion or protrusion and infection are frequent complications of this procedure. During 2000-2012, in "Fundeni" General Surgery and Liver Transplantation Clinic, Romania, 248 patients with advanced pelvic cancer and invasive recurrences were operated by the author. For 132 patients, various procedures for pelvic and vaginal reconstruction (non resorbable mesh [8], omental flap [79], muscular and musculo-cutaneous flaps - rectus abdominis [58], gluteal [4], gracilis [9] and multi-flap [15]) were performed in order to fill the pelvi-perineal defects, restore form and function and reduce mutilating consequences of the exenterative procedure. Technical principles, indications, contraindications, advantages and disadvantages of these procedures are outlined. We found that complications related to total pelvic exenteration dramatically decreased and primary healing of the perineal wound was superior.

P52

Preoperative chemoradiation affects pudendal terminal motor latency in rectal carcinoma patients

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Background. In spite of decreasing local recurrences rate for rectal carcinoma due to preoperative irradiation, neoadjuvant treatment can worsen functional results after sphincter-saving operations.

Methods. From 2009 to 2010, in 20 pts (12 male, average age 5.3±9.3 years) with T2-3N0-2M0 rectal carcinoma pudendal terminal motor latency (PTML) and computed needle electrode electromyography of external sphincter were recorded before and in 4 weeks after chemoradiation upfront to surgery. PTML up to 2.2 ms was considering as normal rate and measured using digital examination with St-Marks glove. Irradiation was given concurrently with 5-FU 350 mg/m^2 and cisplatin 90 mg up to total dose 47 Gy. Surgery was performed in 4-7 weeks after chemoradiation (CRT).

Results. In males PTML have been risen from 2.9 to 4.3 ms (p= 003) and from 5.4 to 10.9 ms (p=003) in right and left side accordingly, while in females no any significant changes were found (from 2.1 to 2.4 ms, p=.161 and 4.5 to 2.5 ms, p=917). Rest and squeeze electrical activity of external sphincter has been decreased from 226.5±157.3 to 196.9±141 mcV, (p=.048) and from 369.7±226.4 to 262.4±138.1 mcV (p=041) respectively. In term of gender there was no difference between rates of electrical activity before and after CRT.

Abstract Types

CRA
Clinical Review Abstract

LBA
Late-Breaking Abstract

TPS
Trials in Progress Abstract

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Expression of transcription factor Scratch2 in colorectal cancer.

Sub-category:
Colorectal Cancer

Category:
Gastrointestinal (Colorectal) Cancer

Meeting:
2013 ASCO Annual Meeting

Abstract No:
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Publication-only abstracts (abstract number preceded by an "e"), published in conjunction with the 2013 Annual Meeting **but not presented at the Meeting**, can be found online only.

Author(s): Krasimir Ivanov, Nikola Kolev, Anton Tonev, Peter Ghenev, Nedyalka Zgurova, Georgi Ivanov, Tanya Kirilova, Valentin Ignatov, Aleksandar Zlatarov, Anton Tonchev; University Hospital, Varna, Bulgaria; Medical University of Varna, Varna, Bulgaria

Abstract Disclosures

Abstract:

Background: The *Scratch* genes constitute an independent subgroup of the *Snail* superfamily of transcription factors (TFs). Vertebrates contain 2 *Snail* and 2 *Scratch* genes (Scrt1 and Scrt2). Members of the Snail/Scratch superfamilies are characterized by a having both zinc finger domains, which mediate DNA-binding and a SNAG domain that is necessary for the transcriptional repression. Under normal conditions, the Scratch genes are expressed exclusively in the nervous system, where they regulate cortical neurogenesis (Paul, Tonchev, et al. Cerebral Cortex 2012, Epub ahead of print; doi: 10.1093/cercor/bhs356). However, expression of Scrt2 under pathological conditions is poorly characterized, especially in humans. **Methods:** We investigated the expression of Scrt2 by immunohistochemistry in 50 primary or metastatic (hepatic metastasis) colorectal cancer biopsies acquired through routine operations at the Department of General Surgery, Medical University-Varna, Bulgaria. We also evaluated the histological type and clinical stage of the tumors. **Results:** We found that both the primary and the metastatic tumor strongly expressed Scrt2 protein. Interestingly, the expression was mostly in the cytoplasm, in accordance with the reported pattern in the developing cortex (Paul, Tonchev, et al. Cerebral Cortex 2012, Epub ahead of print; doi: 10.1093/cercor/bhs356). Notably, in the hepatic metastatic tumors, we found no or scarce expression in the normal hepatic parenchyma surrounding the tumor, while a strong expression in the colorectal cancer metastasis. **Conclusions:** Scrt2 represents a putative novel marker for colorectal cancer. Detailed correlation of the clinical parameters, such as patient survival, and the expression level of Scrt2 might yield novel prognostic value of this TF in the pathogenesis of colorectal cancer.

Other Abstracts in this Sub-Category:

1. Effect of 3-5 years of scheduled CEA and CT follow-up to detect recurrence of colorectal cancer: FACS randomized controlled trial.

Meeting: 2013 ASCO Annual Meeting Abstract No: 3500 First Author: D. Mant
Category: Gastrointestinal (Colorectal) Cancer - Colorectal Cancer

2. Phase III randomized, placebo (PL)-controlled, double-blind study of intravenous calcium/magnesium (CaMg) to prevent oxaliplatin-induced sensory neurotoxicity (sNT), N08CB: An alliance for clinical trials in oncology study.

Meeting: 2013 ASCO Annual Meeting Abstract No: 3501 First Author: C. L. Loprinzi
Category: Gastrointestinal (Colorectal) Cancer - Colorectal Cancer

UP TO DATE GASTRIC CANCER SURGERY

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BACKGROUND: Effective palliation rather than cure is often the most appropriate goal in the management of patients with advanced gastric cancer.The literature to date is limited by the imprecise use of the term palliative and subsequent variable designation of patients into evaluable groups. STUDY DESIGN: Between 2000 and 2007, 303 patients underwent a operation for gastric adenocarcinoma. Patients who received a noncurative (R1/R2) resection were identified. A procedure was defined as palliative if it was performed explicitly to palliate symptoms or improve quality of life. RESULTS: One hundred and ninety five of them (65%) received a noncurative gastric resection. The operation was palliative in 47% (92/195) and nonpalliative in 53% (103/195). Palliative no curative operations aimed preservation of tumor-engaged organ's function, enhanced quality of patient's life till dead, but not prolonged his life. No curative no palliative operations aimed cytoreductive effect by removing the organ engaged with primary tumor and improve the results of postoperative complex treatment and prolong the patient's life. CONCLUSIONS: There are important differences among patients undergoing noncurative operations for gastric cancer. Studies designed to measure palliative interventions would benefit from precise designations of palliative intent in patients receiving noncurative operations. Considerable variation in defining palliative care has complicated the understanding of the role of surgery in managing patients with advanced malignancies.(1) Surgeons commonly use the word *palliative* to describe a procedure performed in the presence of unresectable disease, a patient with limited survival, or as acknowledgment that a successful curative operation is not possible.(2) Such imprecise and incorrect characterizations of palliation have contributed to varied interpretations of surgical indications and outcomes. Palliative care has been defined by theWorld Health Organization as "the total active care of patients whose disease is not responsive to curative treatment. Control of pain, of other symptoms, and of psychologic, social, and spiritual problems is paramount. The goal of palliative care is the achievement of the best quality of life for patients and their families."(3) Others have further classified surgical palliation to include the evaluation of extent of disease (to include surgical biopsy), control of local disease, control of discharge or hemorrhage, control of pain, reconstruction and rehabilitation, and treatment of procedure-related complications.(4) Although these broad definitions provide a global understanding of the scope of palliative care, they fail to clarify the subject of surgical palliation. For example, inclusion of patients undergoing a surgical biopsy with those undergoing a palliative resection produces such dissimilar groups that the evaluation of important factors such as surgical morbidity and mortality is severely limited. Even in patients with known metastatic disease, it is difficult to make valid comparisons between contrasting clinical scenarios such as elective flap coverage of a complex wound versus an emergency laparotomy for gastrointestinal bleeding. Because ideal palliative care requires an approach defined in terms of a patient's individual needs and values, identical procedures may play dramatically different roles for each patient.(5) Surgical palliation of malignancy is defined best as a procedure used with the primary intention of improving quality of life or relieving symptoms caused by an advanced malignancy.(1, 2, 5) Palliation is

NEW TRENDS IN RECTAL CANCER SURGERY CASE OF THE PRACTICE

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BACKGROUND: Sphincter preservation, disease control, and long term survival are the main goals in the treatment of rectal cancer. Although transanal local excision is attractive because it is a sphincter sparing procedure, some contradictory data exist in the literature about its ability to locally control disease and provide overall survival comparable with radical procedures, even for patients with early stage tumor. In patients with early rectal cancer (T1), local excision may be an alternative approach in highly selected patients. For more advanced rectal cancer, radical surgical resection is the treatment of choice. METHODS: We reviewed the literature to identify the current recurrence and survival rates of both techniques as well as the salvage surgery success, only 1 study was prospective, 5 were comparative, and 5 were case reports. We present a case report of a woman with local excision of rectal tumor. Five years later a rectal recurrence has showed up. We describe the case and make some conclusions.

INTRODUCTION: Local excision of rectal neoplasms is well described as an alternative to abdominoperineal resection (APR) and anterior resection in selected patients, with fewer postoperative complications and operative mortality.1 Historically, local excision has included transanal,2 transsacral,3 and transsphincteric4 approaches. The transanal approachis a minimally invasive technique that allows greater exposure and facility in the management of proximal disease than traditional local excision, with a shorter operative time and less morbidity than the radical surgical procedures. 5We found such data in the literature and sometimes provide this kind of treatment to our patients. But what we do indeed curative treatment or trying to avoid postoperative morbidity? According to the TNM staging system, the most valuable prognostic factor is the clinical stage (from I to IV). It has direct correlation with the presence or absence of local or distant metastases. Lymph node metastasis has been reported in 3% to 17% of T1 cancers6-10 and is found in 52% of tumors <5 cm.10 Features that increase the risk of lymph node metastasis include poor differentiation, vascular invasion, and depth of invasion.11 Low-risk T1 lesions (well or moderately well differentiated and without lymphatic invasion) carry a 5% risk of lymph node metastasis, compared with 27% for highrisk lesions.12 A study report for 15% recurrence rate for locally resected adenomas 13 We present a case of our practice with anamnesis for local excision of rectal cancer (pT1NxMx) in the past, 5 years ago. On clinical examination, during routine followup procedure she was found to have a mass in the retrorectal region which was palpable on rectal examination. MR tomography revealed the presence of adjacent lobulated soft-tissue mass in the perirectal fat adjacent to the coccyx posteriorly After making preoperative considerations, the patient was operated on. Initially, trans-sacral approach York-Masson was applied. Due to volume of the sacral resection, the coccigeal bone and the two distal vertebras of the sacrum were removed. Biopsy and expressed intraoperative morphological evaluation confirm the recurrent nature of the tumor mass. It was made a decision to converse the approach via laparotomy and R-0 low anterior resection of the rectum with hand-sewn anastomosis was made.

Markers

Tonev, Kolev, Ivanov, Ignatov, Ivanov

Introduction: The overall five-year survival rate remains at 40 to 45 percent in patients with colorectal cancer. Surgical resection is the mainstay of radical treatment, however, nearly one-half of all patients who undergo a potentially curative resection will relapse because of undetected metastasis. The p-53, MUC-2, Ki-67, VEGF, Bax, Bcl-2, Stat, MMP2 are markers, which could describe all the stages of carcinogenesis.

Aim: To clarify the usefulness of immunohistochemical molecular markers in predicting the metastatic potential and tumor behavior of colorectal cancer

Material and methods: We evaluate the expression of those markers in group of 72 patients with colorectal carcinoma. We observed the relations between: 1) type of operation; 2) histological type; 3) clinical stage; 4) correlation between survival rate, molecular prognosis and recurrence rate.

Results: Achieving 97% successful rate in our study, we statistically analyzed the data received from marker's expression. Based upon that, we divided the patients in 3 groups. A Group A, formed by 28 (38%) patients, which are with low clinical stage and worse molecular prognosis. A Group B, formed by 20 (27%) of patients had low tumor aggression and III or IV clinical stage and Group C, formed by the other 26 (35%) of the patients where is a correlation between the molecular and clinical stage prognosis.

Conclusion: Multivariate analysis revealed that the molecular prognosis become independent prognostic factor for the tumor outcome. Analysis of a combination of immunohistochemical molecular markers with the conventional diagnostic methods for colorectal cancer allows better prediction of the patients' prognosis and more accurate and individualized therapeutic strategy.

MANAGEMENT AND EPIDEMIOLOGY OF LIVER METASTASES FROM COLORECTAL CANCER

N. Kolev, A. Tonev, G. Ivanov, K. Ivanov, V. Ignatov

OBJECTIVE/BACKGROUND: Little is known about the epidemiology and the management of liver metastases from colorectal cancer at a population level. The aim of this population-based study was to report on the incidence, treatment, and prognosis of synchronous and metachronous liver metastases. METHODS: Data were obtained from the population-based cancer registry of "St. Marina" University Hospital, Varna, Bulgaria. RESULTS: The proportion of patients with synchronous liver metastases was 14.5%. Age-standardized incidence rates were 7.6 per 100,000 in males, 3.7 per 100,000 in females. The 5-year cumulative metachronous liver metastasis rate was 14.5%. It was 3.7% for TNM stage I tumors, 13.3% for stage II, and 30.4% for stage III ($P < 0.001$). The risk of liver metastasis was also associated to gross features. Resection for cure was performed in 6.3% of synchronous liver metastases and 16.9% of metachronous liver metastases. Age, presence of another site of recurrence, and period of diagnosis were independent factors associated with the performance of a resection for cure. The 1- and 5-year survival rates were 34.8% and 3.3% for synchronous liver metastases. Their corresponding rates were, respectively, 37.6% and 6.1% for metachronous liver metastases. CONCLUSION: Liver metastases from colorectal cancer remain a substantial problem. More effective treatments and mass screening represent promising approaches to decrease this problem.

P 19

Stabilisation of the O^2., NOo and MMP generating activity of neutrophils and platelets raises survival rate rectum cancer patients

E. Sydorik [1], A. Burlaka [2]*, I. Ganusevich [1], D. Rozumiy [3], A. P. Burlaka [1]

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Methods: activity of neutrophils, platelets and survival rate were investigated after anticoagulants using in schemes of complex treatment of 46 patients pT3N0M0 - pT3-4N1M0, G2, with all type of tumor growth . Generation speed of superoxide radical-aniones (O2.) and nitric oxide (NOo) by neutrophils and platelets was investigated by a method of an electronic paramagnetic resonance, and activity of matrix metalloproteinases (MMP-2, MMP-9) - by zymography method. Results: patients, which were treated with schemes included nadroparine calcium, have been divided into 2 groups: with low levels of generation speed of O2. by neutrophils (1,80±0,5 nmol/1?103 cells?min) and platelets (1,5±0,2) and high levels (8,0±3,2 and 3,5±0,75, respectively). On an indicator of generating speed of NOo by iNOS patients divided into 2 groups too: with low levels 2,86 ±0,59 nmol/1?106 cells?min by neutrophils and 3,5±0,75 by platelets and with high levels 169,1 ± 27,5 and 22,5±1,4 respectively. Patients which stabilised NAD(P)H-oxidase and iNOS activity after treatment also have low (control) MMP-2,-9 values (0,25±0,10 mkg/ml). Effects of heparin on neutrophils and platelets activity were less expressed and unstable. 3-year survival rate in patients with stabilized activity of neutrophils and platelets was 100%. Conclusions: O2., NOo and MMP-2,-9 generation by neutrophils and platelets is an indicator of thromboembolitic complications risks, and stabilization their activity decreases probability of thrombogenesis and correlate with longer term without the recurrent.

P 20

Recurrent retcal cancer

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For patients with recurrent rectal cancer, the only hope of cure requires a coordinated multidisciplinary approach to treatment. In general, chemotherapy, extensive surgery, and the use of directed IOCT seem to improve local control and survival. Surgery in these patients carries a higher morbidity rate than surgery for primary rectal cancer, but one that is acceptable in appropriately selected patients. Before proceeding with multimodal therapy, patients should be thoroughly evaluated for the presence of disseminated extrapelvic or metastatic disease, which would, in most instances, preclude a curative operation. Experience indicates that isolated anterior or posterior fixation of the tumor does not preclude a curative resection. In these cases, en bloc resection of involved organs or bony structures can result in resection with negative margins. However, tumors fixed to the lateral pelvic sidewall, fixed at multiple points, or fixed circumferentially are often unresectable or incurable. Available data from many institutions indicates that multimodal therapy for recurrent rectal cancer results in better local control and higher survival rates than palliative therapy.

P 21

Molecular profile in patients with colorectal cancer

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Introduction: Patient survival rate from colorectal cancer in the last few decades, the overall five-year survival rate remains at 40 to 45 percent. Surgical resection is the mainstay of treatment for colorectal cancer. We used as markers p-53, MUC-2, Ki-67, VEGF, Bax, Bcl-2, Stat, MMP2, which could describe all the stages of carcinogenesis. Aim: To clarify the usefulness of immunohistochemical molecular markers in predicting the metastatic potential and tumor behavior of colorectal cancer. Material and methods: We evaluate the expression of those markers in group of 72 patients with colorectal carcinoma. We observed the relations between: 1) type of operation; 2) histological type; 3) clinical stage; 4) individual risk index (IRI), based on evaluated expression of tumor markers. Results: Achieving 100% successful rate in our study, we statistically analyzed the data received from marker's expression. Based upon that, we calculated an IRI for every patient and divided the patients in 3 groups. A Group A, formed by 28 (38%) patients, which are with low clinical stage and worse molecular prognosis. A Group B, formed by 20 (27%) of patients had low tumor aggression and III or IV clinical stage and Group C, formed by the other 26 (35%) of the patients where is a correlation between the molecular and clinical stage prognosis. Conclusion: Multivariate analysis revealed that the IRI is independent prognostic factor for the tumor outcome. Analysis of a combination of immunohistochemical molecular markers with the conventional diagnostic methods for colorectal cancer allows better prediction of the patients' prognosis.

P 19

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Methods: activity of neutrophils, platelets and survival rate were investigated after anticoagulants using in schemes of complex treatment of 46 patients pT3N0M0 - pT3-4N1M0, G2, with all type of tumor growth . Generation speed of superoxide radical-aniones (O2.) and nitric oxide (NOo) by neutrophils and platelets was investigated by a method of an electronic paramagnetic resonance, and activity of matrix metalloproteinases (MMP-2, MMP-9) - by zymography method. Results: patients, which were treated with schemes included nadroparine calcium, have been divided into 2 groups: with low levels of generation speed of O2. by neutrophils (1,80±0,5 nmol/1?103 cells?min) and platelets (1,5±0,2) and high levels (8,0±3,2 and 3,5±0,75, respectively). On an indicator of generating speed of NOo by iNOS patients divided into 2 groups too: with low levels 2,86 ±0,59 nmol/1?106 cells?min by neutrophils and 3,5±0,75 by platelets and with high levels 169,1 ± 27,5 and 22,5±1,4 respectively. Patients which stabilised NAD(P)H-oxidase and iNOS activity after treatment also have low (control) MMP-2,-9 values (0,25±0,10 mkg/ml). Effects of heparin on neutrophils and platelets activity were less expressed and unstable. 3-year survival rate in patients with stabilized activity of neutrophils and platelets was 100%. Conclusions: O2., NOo and MMP-2,-9 generation by neutrophils and platelets is an indicator of thromboembolitic complications risks, and stabilization their activity decreases probability of thrombogenesis and correlate with longer term without the recurrent.

P 20

Recurrent retcal cancer

K. Ivanov [1*], V. Ignatov [1], N. Kolev [1], A. Tonev [1]

[1]*Medical University of Varna, Varna, Bulgaria*

For patients with recurrent rectal cancer, the only hope of cure requires a coordinated multidisciplinary approach to treatment. In general, chemotherapy, extensive surgery, and the use of directed IOCT seem to improve local control and survival. Surgery in these patients carries a higher morbidity rate than surgery for primary rectal cancer, but one that is acceptable in appropriately selected patients. Before proceeding with multimodal therapy, patients should be thoroughly evaluated for the presence of disseminated extrapelvic or metastatic disease, which would, in most instances, preclude a curative operation. Experience indicates that isolated anterior or posterior fixation of the tumor does not preclude a curative resection. In these cases, en bloc resection of involved organs or bony structures can result in resection with negative margins. However, tumors fixed to the lateral pelvic sidewall, fixed at multiple points, or fixed circumferentially are often unresectable or incurable. Available data from many institutions indicates that multimodal therapy for recurrent rectal cancer results in better local control and higher survival rates than palliative therapy.

P 21

Molecular profile in patients with colorectal cancer

N. Kolev [1*], A. Tonev [1], K. Ivanov [1]

[1]*Medical University of Varna, Varna, Bulgaria*

Introduction: Patient survival rate from colorectal cancer in the last few decades, the overall five-year survival rate remains at 40 to 45 percent. Surgical resection is the mainstay of treatment for colorectal cancer. We used as markers p-53, MUC-2, Ki-67, VEGF, Bax, Bcl-2, Stat, MMP2, which could describe all the stages of carcinogenesis. Aim: To clarify the usefulness of immunohistochemical molecular markers in predicting the metastatic potential and tumor behavior of colorectal cancer. Material and methods: We evaluate the expression of those markers in group of 72 patients with colorectal carcinoma. We observed the relations between: 1) type of operation; 2) histological type; 3) clinical stage; 4) individual risk index (IRI), based on evaluated expression of tumor markers. Results: Achieving 100% successful rate in our study, we statistically analyzed the data received from marker's expression. Based upon that, we calculated an IRI for every patient and divided the patients in 3 groups. A Group A, formed by 28 (38%) patients, which are with low clinical stage and worse molecular prognosis. A Group B, formed by 20 (27%) of patients had low tumor aggression and III or IV clinical stage and Group C, formed by the other 26 (35%) of the patients where is a correlation between the molecular and clinical stage prognosis. Conclusion: Multivariate analysis revealed that the IRI is independent prognostic factor for the tumor outcome. Analysis of a combination of immunohistochemical molecular markers with the conventional diagnostic methods for colorectal cancer allows better prediction of the patients' prognosis.

P 22

Combined method of regionl staging of retcal cancer

V. Ignatov [1]*, K. Ivanov [1], N. Kolev [1], A. Tonev [1]
[1]*Medical University of Varna, Varna, Bulgaria*

Aim: To apply the both methods of endorectal ultrasonography and intraoperative endoscopic sentinel lymph node mapping I n patients with rectal cancer In order to contribute exact regional staging of rectal cancer. Method: We performed intraoperative endoscopic sentinel lymph node mapping in addition to endorectal ultrasonography in 322 patients with rectal cancer who underwent radical sphincter spearing operations over a period of 7 years. Results: We achieved a sensitivity of 83% and N stage specificity of 87% while for intraoperative sentinel lymph node mapping we achieved sensitivity of 97% and specificity of 80%-100%. Conclusion: The simultaneous application of both methods in patients with rectal cancer results in the development of new diagnostic approach with sensitivity and specificity higher than the recorded of the aforementioned methods alone.

P 23

Randomized controlled trial to assess feasibility and efficacy of CO2 insufflation during colonoscopy in moderate and deep sedated patients.

S. Riss [1]*, B. Akan [1], B. Mikola [2], E. Rieder [1], J. Karner-Hanusch [1], D. Dirlea [2], M. Mittlböck [3] F. Weiser [2]
[1]*Medical University of Vienna, Department of Surgery, Vienna, Austria* [2]*Endoscopic Center, Vienna, Austria* [3]*Medical University of Vienna, Department of Core Unit for Medical Statistics and Informatics, Vienna, Austria*

Introduction: The study was designed to assess the feasibility and efficacy of CO2 during and after colonoscopy in moderate and deep sedated patients. The secondary endpoint was to evaluate whether CO2 is able to enhance patient's compliance to undergo colonic cancer screening. Patients and methods: Three-hundred consecutive patients allocated for colonoscopy were randomly assigned to either CO2 or air insufflation. Patients were titrated to a level of deep sedation by propofol alone or to moderate sedation when combined with midazolam. Postinterventional pain and satisfaction were registered by a visual analogue scale (VAS). Colonic cancer screening compliance was questioned separately. Results: CO2 insufflation was used in 157 patients, whereas in 143 patients conventional air was applied during colonoscopy. Both groups were comparable in regard to age, sex and BMI. Neither major nor minor complications were observed. Pain-sensation was significantly lower in the CO2 group 15 minutes, 30 minutes as well as 6 hours after colonoscopy ($p<0.01$). Twelve hours after endoscopy no difference was observed. In contrast, satisfaction level did not show any significant difference. Voluntary colonic cancer screening seemed not to be influenced by the type of insufflation gas. Conclusions: CO2 insufflation in deep and moderated sedated patients during colonoscopy has no impact on patient's satisfaction and voluntary colonic cancer screening. However, the use of CO2 insufflation significantly diminishes abdominal pain after colonoscopy.

P 24

An idea how to construct a new anal sphincter after abdomino-perineal rectum extirpation

Z. Loderer [1]*, I. Kovacs [1], J. Mohay [1], A. Nagy [1]
[1]*County Hospital in Veszprem, Veszprem, Hungary*

Background: In accordance with the literature the results of anal sphincter construction after total removal of anal canal are poor in the cases when local muscle flaps are used without any outer electrical stimulator. Methods: The most popular muscle flaps to construct a neosphincter are the gracilis and the gluteus maximus muscle. To make a sphincter equivalent innervation to these muscles an anastomosis can be made between the external anal sphincter´s motor nerve and the chosen muscle´s own motor nerve. Experimental animal studies show that a continent anal sphincter can be constructed by using free muscle flaps . Results:To evaluate the technical parts and results of the two methods mentioned above a significant difference can be realized in connection with the duration of nerve regeneration. It is too long in the cases of local muscle flaps and this is the reason why the muscle has been losing most of its volume by the time when the nerve regeneration process reaches the muscle. As compared to the local flaps, when free muscle flaps are applied, the distance between the nerve anastomosis and the muscle is remarkably shorter. A much shorter regeneration time can be realized and the muscle´s volume loss is irrelevant. Conclusion:We are planning to construct a neo-sphincter by using an innervated free gracilis muscle flap around a perianal colostoma.

P 19

Stabilisation of the O^2., NOo and MMP generating activity of neutrophils and platelets raises survival rate rectum cancer patients

E. Sydorik [1], A. Burlaka [2*], I. Ganusevich [1], D. Rozumiy [3], A. P. Burlaka [1]

[1]*R.E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology, Kyiv, Russia* [2]*National O. Bogomolets Medical University, Kyiv, Russia,* [3]*National Cancer Institute, Kyiv, Russia*

Methods: activity of neutrophils, platelets and survival rate were investigated after anticoagulants using in schemes of complex treatment of 46 patients pT3N0M0 - pT3-4N1M0, G2, with all type of tumor growth . Generation speed of superoxide radical-aniones (O2.) and nitric oxide (NOo) by neutrophils and platelets was investigated by a method of an electronic paramagnetic resonance, and activity of matrix metalloproteinases (MMP-2, MMP-9) - by zymography method. Results: patients, which were treated with schemes included nadroparine calcium, have been divided into 2 groups: with low levels of generation speed of O2. by neutrophils (1,80±0,5 nmol/1?103 cells?min) and platelets (1,5±0,2) and high levels (8,0±3,2 and 3,5±0,75, respectively). On an indicator of generating speed of NOo by iNOS patients divided into 2 groups too: with low levels 2,86 ±0,59 nmol/1?106 cells?min by neutrophils and 3,5±0,75 by platelets and with high levels 169,1 ± 27,5 and 22,5±1,4 respectively. Patients which stabilised NAD(P)H-oxidase and iNOS activity after treatment also have low (control) MMP-2,-9 values (0,25±0,10 mkg/ml). Effects of heparin on neutrophils and platelets activity were less expressed and unstable. 3-year survival rate in patients with stabilized activity of neutrophils and platelets was 100%. Conclusions: O2., NOo and MMP-2,-9 generation by neutrophils and platelets is an indicator of thromboembolitic complications risks, and stabilization their activity decreases probability of thrombogenesis and correlate with longer term without the recurrent.

P 20

Recurrent retcal cancer

K. Ivanov [1*], V. Ignatov [1], N. Kolev [1], A. Tonev [1]

[1]*Medical University of Varna, Varna, Bulgaria*

For patients with recurrent rectal cancer, the only hope of cure requires a coordinated multidisciplinary approach to treatment. In general, chemotherapy, extensive surgery, and the use of directed IOCT seem to improve local control and survival. Surgery in these patients carries a higher morbidity rate than surgery for primary rectal cancer, but one that is acceptable in appropriately selected patients. Before proceeding with multimodal therapy, patients should be thoroughly evaluated for the presence of disseminated extrapelvic or metastatic disease, which would, in most instances, preclude a curative operation. Experience indicates that isolated anterior or posterior fixation of the tumor does not preclude a curative resection. In these cases, en bloc resection of involved organs or bony structures can result in resection with negative margins. However, tumors fixed to the lateral pelvic sidewall, fixed at multiple points, or fixed circumferentially are often unresectable or incurable. Available data from many institutions indicates that multimodal therapy for recurrent rectal cancer results in better local control and higher survival rates than palliative therapy.

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P 24

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Z. Loderer [1*], I. Kovacs [1], J. Mohay [1], A. Nagy [1]
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Background: In accordance with the literature the results of anal sphincter construction after total removal of anal canal are poor in the cases when local muscle flaps are used without any outer electrical stimulator. Methods: The most popular muscle flaps to construct a neosphincter are the gracilis and the gluteus maximus muscle. To make a sphincter equivalent innervation to these muscles an anastomosis can be made between the external anal sphincter´s motor nerve and the chosen muscle´s own motor nerve. Experimental animal studies show that a continent anal sphincter can be constructed by using free muscle flaps . Results:To evaluate the technical parts and results of the two methods mentioned above a significant difference can be realized in connection with the duration of nerve regeneration. It is too long in the cases of local muscle flaps and this is the reason why the muscle has been losing most of its volume by the time when the nerve regeneration process reaches the muscle. As compared to the local flaps, when free muscle flaps are applied, the distance between the nerve anastomosis and the muscle is remarkably shorter. A much shorter regeneration time can be realized and the muscle´s volume loss is irrelevant. Conclusion:We are planning to construct a neo-sphincter by using an innervated free gracilis muscle flap around a perianal colostoma.

MULTICENTRAL TRIAL FOR COLORECTAL METASTASES MAJOR HEPATIC SURGERY

Authors: Kolev N., A. Tonev, K. Ivanov, L. De Carlis, V. Ignatov, G. Ivanov, P. Mihaylov
University: Medical university "Prof. d-r Paraskev Stoyanov"

Surgery

ICMS 2009 / OP 28 Surgery

Abstract:
AIM: The latest hepatic surgical strategies enable liver resections to be performed on a larger number of patients, improving the survival rate.
The aim of this study was to analyse early results of operative treatment of the patients with the liver metastases of colorectal carcinoma.
MATERIAL AND METHODS: For one year period between 2008 and 2009 data were prospectively collected on 56 patients with colorectal liver metastases. The multicentral trial was done in common with Dipartamento dei Trapianti U.O. Di Chirurgia e Trapianti di Fegato A.O. Niguarda Ca' Granda, Milano Italy and University hospital "St. Mraina" - Varna Bulgaria . Diagnostic protocol further included color Doppler ultrasonography of the liver and port system, as well as spiral computed tomography.
RESULTS: of All the patients 22 (40%) were indicated for the liver resection. In 20 (90%) of them it was performed successfully. 4 (20%) of patients who underwent liver resection were in H1, 16 (80%) were in H2. Liver resection was done using CUSA. There were 75% of anatomical liver resections and 25% of atypical resections. In 31.1% of the operated patients we made resection on up to two segments of the liver and in 30.3% we made resection of three segments. In 30% of the cases we used a technique of liver vascular isolation. In 100% of operated patients were transfused. On average, 500 ml of blood was transfused. Of the total number of resections, 90% was of the type R0, 10% of the type R1. An average duration of postoperative hospitalization was 12 days. Operative morbidity rate was 5%.
CONCLUSION: Anatomic liver resection including selective vascular hepatic excision by the use of an CUSA scalpel and operative blood transfusion is considered to be efficient and secure method for the reduction of intraoperative and postoperative complications rendering good surgical results.

Keywords:
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Conclusion: However, serious complications can occur and therefore a careful selection of patients is of utmost importance. The importance of weight loss and results of conventional treatment will be discussed in future

Abstracts' Keywords: BARIATRIC SURGERY, OBESITY
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P27

ENTERAL NUTRITION IN SURGICAL PATIENTS

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Purpose: Malnutrition is well-recognized as a potential cause of increased morbidity and mortality in surgical patients; however, enteral and parenteral nutritional support given pre- and postoperatively have been shown to decrease these rates. We conducted a prospective study to assess the short-term efficacy of oral dietary supplementation in malnourished patients undergoing major abdominal surgery.
Methods: 112 patients (71 oncological and 41 non-oncological) undergoing abdominal surgery were divided according to nutritional risk index into borderline, moderately, and severely malnourished categories. The patients in each category were randomly divided into a treatment group (80 patients) and a control group (42 patients). Treatment group patients were given an oral sip feed containing 500 kcal of energy and 16.66 g of protein in addition to their daily oral intake.
Results: The supplemented feeds were well tolerated and the total caloric and protein intake in the treatment group was significantly higher than in the control group, at 1798 vs 1182 kcal ($P < 0.01$), protein 55.71 vs 39.48 g ($P < 0.01$), respectively. Weight loss in the severely malnourished patients was significantly less in the treatment group than in the control group, at 2.15 vs 4.6 kg ($P < 0.001$), respectively. Complications developed in 15 of the 80 treatment group patients and in 13 of the 42 control group patients.
Conclusions: Patients with severe malnutrition are likely to develop large energy deficits postoperatively, resulting in loss of body mass and a higher incidence of infective complications. Oral nutritional supplements are well tolerated by these patients, and help to improve their energy and routine intake and reduce the risk of complications. A limitation for targeted nutritional support is the lack of a standardised, validated definition of nutritional depletion.

Abstract's Keywords: NUTRITION , SURGICAL, PATIENTS
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socio-demographic characteristics, anthropometric measurements, LBP, medical, reproductive history, health status and menopausal status. The women completed questionnaires for identifying pain severity, depression and anxiety.
Results: In 2008 39.5% of the investigated women reported LBP with recovery within a month or recurrent or continuous pain during the preceding 12 months. For menopausal women only, those with higher body mass index, waist circumference and hip circumference showed an increased prevalence of LBP. Among all weight-related factors, only waist circumference was related to LBP. For menopausal women, the odds ratios of LBP were 1.2 (95% confidence interval: 0.8, 1.8) for a waist circumference of 80-87.9 cm and 1.8 (95% confidence interval: 1.0, 3.2) for a waist circumference of $\geq$ 88 cm compared with a waist circumference of < 80 cm.
Conclusions: The prevalence of pain is higher among obese postmenopausal women compared to their normal-weight peers. We found that in a population of postmenopausal women the abdominal obesity might increase the risk of LBP.

Abstracts' Keywords: Low back pain, obesity, postmenopausal women
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P26

BARIATRIC SURGERY OF OBESITY

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Background: More than 30% of the Bulgarian population are overweight (body mass index (BMI) > 25 and < 30 kg/m^2) and up to 30% are obese (BMI > or = 30 kg/m^2). The overweight and obesity may become endemic, particularly because of increasing the nutrition levels and decreasing in physical exercise. Insulin resistance, type 2 diabetes, dyslipidemia, hypertension, cholelithiasis, certain forms of cancer, steatosis hepatis, gastroesophageal reflux, obstructive sleep apnea are all associated with overweight and obesity. The endemic extent of overweight and obesity with its associated comorbidities has led to the development of therapies aimed at weight loss.
Material and method: The long-term effects of diet, exercise, and medical therapy on weight are relatively poor and are dependent from the psychological profile of the individual. Despite of the results shown in weight reduction control, bariatric surgery is the most effective long-term treatment for obesity with the greatest chances for resolution of obesity-associated complications. Our material includes 10 patients, operated for extreme obesity (BMI over 40) with concomitant pbesity-related conditions after failure of conventional treatment.
Results: We analyze the short and long term results from the surgical treatment and propose indications for undergoing bariatric surgery. Our evidence shows that bariatric surgery for severe obesity is not associated with mortality.

BULGARIAN EXPERIENCE IN FAST TRACK SURGERY

Kolev N., A. Tonev, K. Ivanov, V. Ignatov, G. Ivanov, G. Haralanova, L. Panayotova

BACKGROUND & AIMS: A fast-track program is a multimodal approach for patients undergoing general surgery that combines stringent regimens of perioperative care (fluid restriction, optimized analgesia, forced mobilization, and early oral feeding) to reduce perioperative morbidity, hospital stay, and cost. We investigated the impact of a fast-track protocol on postoperative morbidity in patients after general surgery. METHODS: A randomized trial of patients in 2 surgical divisions in Bulgarian University Hospital "St. Marina" included 158 patients undergoing elective major abdominal surgery who were assigned to either a fast-track program or standard care. The primary end point was the 30-day complication rate. Secondary end points were severity of complications, hospital stay, and compliance with the fast-track protocol.

RESULTS: The fast-track protocol significantly decreased the number of complications (15 of 74 in the fast-track group vs 36 of 72 in the standard care group;, resulting in shorter hospital stays (median, 5 days; range, 2-30 vs 9 days, respectively; range, 6-30). There was a trend toward less severe complications in the fast-track group. A multiple logistic regression analysis revealed fluid administration greater than the restriction limits and a nonfunctioning epidural analgesia as independent predictors of postoperative complications.

CONCLUSIONS: The fast-track program reduces the rate of postoperative complications and length of hospital stay and should be considered as standard care. Fluid restriction and an effective epidural analgesia are the key factors that determine outcome of the fast-track program.

SUCCESSFUL COMMUNICATION IN SURGICAL EXPLANTATION TEAM

P.42

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Objectives

Tissue explantation is the lifeblood of biological tissue products obtaining and tissue transplantation. A tense competitive atmosphere in the operating room and unprofessional communication skills between explant coordinator and the members of tissue retrieval team may lead to inadequate preservation or surgical injury to the tissues.

Methods

At this stage, all mistakes, which have been made, can make on tissue unsuitable for further processing or transplantation either due to impossible surgical reconstruction or because of damage. Successful communication means that you have to fulfill the following criteria: be responsive, engaging, pleasant, patient, clear, positive, realistic, and a problem solver.

Results

In the operating room never criticize anyone in front of others; if you do so, it will probably cause your colleague to lose face but you will lose the respect of those who view the incident. Focus your criticism on the task and not on the person. This applies to the surgeon as well as the explant coordinator.

Conclusions

Tissue donation procedure is more than just go and get tissue. It is an essential part of the tissue explantation and contributes for its success or failure.

ERROR MANAGEMENT IN SURGICAL EXPLANTATION TEAM

P.38

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Explantation Surgical Team, University Hospital St. Marina - Varna, Bulgaria

Objectives

Error management supported by valid data can provide a useful framework within which surgical explantation team focus efforts to enhance safety of success. Within this context, error management should prove to be an even more valuable tool than it has been in the past.

Methods

Given that the outcomes are universally valued, it should be possible to establish relationships of trust that will facilitate the effort. Regulators also must support these efforts by recognizing that safety requires more than a traditional blame and punish approach to regulation of the tissue explantation system.

Results

Successful error management places six requirements on organizations: a non punitive policy toward error; trust; commitment to taking action to reduce error-inducing conditions; data that show the nature and types of errors occurring; training in error avoidance and management strategies for crews; training in evaluating and reinforcing error management for instructors and evaluators. In addition, the more complex the system, the greater the chance that a change will have more than local effect. [illegible]

Conclusions

[illegible]

CYSTIC LIVER LESIONS

G. Ivanov, G. Haralanova, A. Tonev, N. Kolev, V. Ignatov, K. Ivanov

Most of the liver cysts are asymptomatic. Sonographic and pathological data suggest an overall incidence of 0.1%-0.14% in the general population. 4.7% of all abdominal ultrasound examination reveal a cystic lesion of the liver.

Prognosis of cystic liver lesions depend on their etiology: Simple, solitary cysts and posttraumatic liver cysts have an excellent prognosis. Inflammatory cysts and cystadenomas are, if not treated correctly, bound to relapse. In addition, cystobiliary communications with biliary leakage or fistulae are found in one third of inflammatory cysts close to the hilum and secondary development of cytadenomas into cystadenocarcinomas have been reported . Cystadenocarcinomas and solid neoplasms with secondary cystic degeneration have a sinister prognosis.

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OGILVIE SYNDROME - A CASE REPORT

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Ogilvie syndrome, or acute colonic pseudo-obstruction (ACPO), is a clinical disorder with the signs, symptoms, and radiographic appearance of an acute large bowel obstruction with no evidence of distal colonic obstruction. The other name of this disease is an acute non-toxic megacolon. The colon may become massively dilated; if not decompressed, the patient risks perforation, peritonitis, and death. The acute state has to be discerned immediatelly and treated adequately. The conservative tactics includes naso-gastric drainage, resustitation the homeostasis and stimulation the colonic peristalsis. The aggressive behavior includes an operative treatment (resection) or colonoscopic decompression. Some authors report for considerable rising in the frequency of the cases in postoperative period in some abdominal diseases. That's why they think that Ogilvie syndrome is a postoperative disease. We present a case of the practice – an operated man with acute colonic pseudo – obstruction (ACPO) involving acute colonic ischaemia with necrosis.

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VIRTUAL COLONOSCOPY

Kolev N., A. Tonev, V. Ignatov, K. Ivanov, G. Ivanov

OBJECTIVE: Virtual colonoscopy (VC)/CT colonography has advantages over the well-documented limitations of colonoscopy/barium enema. We aimed to evaluate the ability of VC to assess the large bowel, in patients with clinical signs of colorectal cancer (CRC).

METHOD: We studied 112 patients (74 males, mean age 57.2 years). After bowel preparation, VC was undertaken using colonic insufflations and 3D-spiral CT acquisition by Dual Source CT was done. Direct comparison was made with CC, performed by surgeon-endoscopist.

RESULTS: Virtual colonoscopy visualized the caecum in all cases. Three (3.33%) VCs were classified as inadequate owing to poor distension/faecal residue. Ultimately, 44 patients had normal findings, 44 had diverticular disease, 11 had inflammatory bowel disease, 18 had cancers, and 24 patients had 42 polyps. VC identified 19 cancers-a sensitivity and specificity of 100% and 99.2% respectively. For detecting polyps > 10 mm, VC had a sensitivity and specificity (per patient) of 91% and 99.2% respectively. VC identified four polyps proximal to stenosing carcinomas and extracolonic malignancies in nine patients (6%). In 68 of the patients is underwent conventional colonoscopy for histological verification. No procedural complications occurred with either investigation.

CONCLUSION: We used virtual colonoscopy as screening method for primary finding and indication for conventional colonoscopy. In 48% of the patients the conventional colonoscopy gives final diagnostic verification and in 28% of the patients converses to a therapeutic procedure. The testing of virtual colonoscopy as surveillance method is coming ahead in the future.

УСПЕШНА КОМУНИКАЦИЯ В ХИРУРГИЧЕСКИ ЕКСПЛАНТАЦИОНЕН ЕКИП

Н. Колев, А. Тонев, Иванов К, В. Иванов,

Н. Митев, В. Игнатов, Щ. Щерев

УПРАВЛЕНИЕ НА ГРЕШКИТЕ В ХИРУРГИЧНИЯ ЕКСПЛАНТАЦИОНЕН ЕКИП

Н. Колев, А. Тонев, Иванов К, В. Иванов, Н. Митев, В. Игнатов, Щ. Щерев

FREE PAPER

...ph Node Ratio Is a Prognosis Factor For Stage III ...n Cancer but the Total Number of Lymph Nodes ...eved is Independent for Survival

... Yatsuoka, Yoji Nishimura, Yasuyuki Yokoyama, ... Tanaka (Dept. of ... Surgery, Saitama Cancer Center, Japan)

...nostic Significance of Distribution of Lymph Node ...stasis in Advanced Rectal Cancer

... Ji Won Park, Dae Yong Kim, ... Choi, Jae Hwan Oh (Center for ... National Cancer Center, Korea)

...al Staging in Colorectal Cancer: The Relationship ...een the Status of Metastatic Lymph Nodes and ...nosis of Patients with Colorectal Cancer

... Masaaki Ito, Yuji Nishizawa, Yusuke ... Masanori Sugito, Norio Saito ... Surgery Division, National Cancer ... East, Japan)

...vival Benefit of Para-aortic Lymph Node Dissection for ...ent with Para-aortic Lymph Node Metastasis in ...anced Left-sided Colon and Rectal Cancer

... Mitsuyoshi Ota[1], Shoichi Fujii[2], Yasushi ... Watanabe[1], Kenji Tatsumi[1], Hirokazu ... Yamagishi[1], Tetsuo Abe[3], Shigeo Ohki[1], Itaru ... Hiroshi Shimada[1]
...pt. of Gastroenterological Surgery, Yokohama City Univ. ...duate School of Medicine, Japan, [2]Dept. of Surgery, ...roenterological Center, Yokohama City Univ., Japan, ...t. of Surgery, Yokohama Minato Red Cross Hospital, ...)

...es of Brain Metastasis from Colorectal Cancers

... Yano, Ohki Miyake, Yoshimasa ... Yukio Saito (Dept. of General ... Medical Center of Japan, Toyama ...)

...ssification of Peritoneal Metastasis from Colorectal ...ncer

... Tetsuro Higuchi, Masayuki Enomoto, ... Hiroyuki Uetake, Satoru Iida, Tetsunori ... Ishikawa, Megumi Ishiguro, Kenichi ... (Dept. of Surgical Oncology, Tokyo Medical and ... Univ., Japan)

...al Metastasis Originated from Colorectal Carcinoma

... H Takahashi, I Takemasa, T Mizushima, H ... M Sekimoto, Y Doki, M Mori (Dept. of ... Surgery, Graduate School of Medicine, ... Univ., Japan)

ISUCRS FREE PAPER

[Free Paper 3] Benign Anorectal Disease	March 20 16:30-18:00	GBR 104
Moderators [illegible]		

FP 3-1 Harmonic Scalpel Hemorrhoidectomy Preliminary Experience

FP 3-2 Assessment of Daflon in Reducing Symptoms after Ligasure Hemorrhoidectomy for Prolapsed Hemorrhoids: A Controlled Randomized Study

FP 3-3 Procedure for Prolapse & Hemorrhoids (PPH) – Early Surgical Complications

FP 3-4 An Evaluation of Milligan-Morgan and Ferguson Procedures for Hemorrhoidectomy at Liaquat Univ. Hospital Jamshoro Pakistan

Sheikh Abdul Razaque (Dept. of Surgery, Liaquat Univ. of Medical Health & Sciences Jamshoro Pakistan, Pakistan)

FP 3-5 Rectal Administration of Diclofenac Sodium Immediately after Hemorrhiodectomy Decrease the Use of Other Analgesia

Abdulhakim Al-tamimi, Gamal Khudabakhash, Nasr Al-Qadasi (Dept. of Surgery, Faculty of Medicine, Univ. of Aden, Yemen)

FP 3-6 What are the Histological Differences between Vascular and Mucosal Hemorrhoids?

FP 3-7 Randomized, Controlled and Blinded Study between Suture Ligation and Radiowave Ablation and Suture Ligation of Grade III Symptomatic Hemorrhoidal Disease

FP 3-8 Efficacy of Euphorbia Prostrata (SITCOM) II the Management of Bleeding 1st and 2nd Degree Hemorrhoids

Sunil Kumar Gupta, Rohit Singhal, [illegible] (Dept. of Surgery, [illegible] Hospital, [illegible] Haridwar, Uttarakhand, India)

ISUCRS FREE PAPER

FP 6-2 **Initial Radiological Staging is Not a Predictor of Tumor Response after Neoadjuvant CRT for Distal Rectal Cancer**

Rodrigo Perez[1], Angelita Habr-Gama[2], Joaquim [illegible] [illegible]

FP 6-3 **Lateral Lymph Node Dissection: Is There Any Effect in the Prevention of Local Recurrence of Rectal Cancer?**

Kuichi Takahashi (Dept. of Surgery, Tokyo Metropolitan Cancer and Infectious Diseases Center Komagome Hospital, Japan)

FP 6-4 **Influence of Number of Lymph Nodes Examined on Prognostic Accuracy of Number of Lymph Nodes Involved and Lymph Node Ratio, in Node-positive Colon Cancer**

Yojiro Hashiguchi, Hideki Ueno, Eiji Shinto, Yoshihisa Naito, Yoshiki Kajiwara, Kouichi Okamoto, Satomi Fukazawa, Takahiro Sueyama, Junji Yamamoto, Hidetaka Mochizuki, Kazuo Hase (Dept. of Surgery, National Defense Medical College, Japan)

FP 6-5 **Is It Possible to Predict Lateral Lymph Node Metastasis by Their Sizes in Patients with Lower Rectal Cancer? Analysis of Paraffin-embedded Sections**

Hasuno Satoshi, Ishibashi Keiichiro, Ishiguro [illegible], Tomonori, Okada Norimichi, Kumamoto Kensuke, [illegible] Masaru, Haga Norihiro, Ishida Hideyuki (Dept. of Digestive Tract and General Surgery, Saitama Medical Center, Saitama Medical Univ., Japan)

FP 6-6 **Laparoscopic Lateral Pelvic Lymph Node Dissection for Advanced Low Rectal Cancer**

[illegible]

FP 6-7 **Progressing N Stage Affects Serum Tumor Marker Rather than Tumor Size in T4 Colorectal Cancer**

Eun-Joo Jung, Chun-Geun Ryu, Dae-Yong Hwang (Dept. of Surgery, Colorectal Cancer Center, Konkuk Univ. [illegible] Center, Korea)

FP 6-8 **miR-181a: The Biomarker of Metachronous Liver Metastasis in Colorectal Cancer**

[illegible] (Dept. of Gastrointestinal [illegible] Cancer Hospital & Institute, China)

FP 6-9 **Current Treatment of Stage IV Colo-rectal Carcinoma – The Surgeon's View**

[illegible] (Dept. of General and Operative Surgery, [illegible])

ISUCRS FREE PAPER

March 22, 2010 (Monday)

[Free Paper 7] Marc
Neoplasia 08:30

Moderators: Paul [illegible]

FP 7-1 **Neoadjuvant Therapy for Rectal Cancer: Tl Longer Interval between Chemoradiation a**

Luis Felipe De Campos [illegible] Moreira, Luca Stocchi, [illegible] Feza Remzi, Matthew Kalady [illegible] Cleveland Clinic-OH, USA)

FP 7-2 **Decreased Number of Retrieved Lymph Nc in Significant Understaging of Patients wit Cancer after Neoadjuvant CRT and Radica**

Rodrigo Perez[1], Angelita Habr-Gama[2] [illegible] Rodrigues[2], Igor Proscurshim[1] [illegible] Rawet[1] ([1]Colorectal Surgery [illegible] [2]Colorectal Surgery Division [illegible] Brazil)

FP 7-3 **Long-term Results of Targeted Radiation t and Intramesorectal Extension Based on F Resonance Imaging (MRI) in the Era of Tot Excision(TME) for Patients with Rectal Ca**

[illegible] Kevin [illegible] Latellier[4], Dawn [illegible] Radiation Oncology [illegible] Diagnostic Radiology [illegible]

FP 7-4 **Benefit of Pelvic Sidewall Dissection for A Rectal Cancer**

[illegible] Hirohiko Sakamoto [illegible] (Gastroenterological Surgery [illegible]

FP 7-5 **Short and Middle Term Results of Partial I Resection for Lower Rectal Cancer**

Shigeki Yamaguchi[1], Toshimasa [illegible] Hosonuma[1], Takahiro Sato[1] [illegible] Miyazawa[1], Nozomi [illegible] Gastroenterological Surgery [illegible] International Medical Center [illegible] Saitama Medical Univ. [illegible]

FP 7-6 **Oncologic Significance of Circumferential Margin Positivity Depends on Circumferer Direction in Rectal Cancer**

Taek-Gu Lee, Sa Min [illegible] (Dept. of Surgery, [illegible] Korea)

ISUCRS FREE PAPER

FP 9-4 **Clinical Significance of Fecal Occult Blood and Fecal CEA Dual Rapid Test Kit for the Detection of Colorectal Cancer**

[illegible] Jo Kim[1], [illegible] Hong Kim[1], Jae Im Lee[2], Sang [illegible] Lee[1], [illegible], Hyeon-Min Cho[1], Kyungja Han[3], Seong [illegible]
([1]Dept. of Surgery, The Catholic Univ. of Korea, St. Vincent's Hospital, Korea, [2]Dept. of Surgery, The Catholic Univ. of Korea, Korea, [3]Dept. of Clinical Pathology, The Catholic Univ. of Korea, Korea)

FP 9-5 **Analysis of Delayed Postpolypectomy Bleeding in a Colorectal Clinic**

Do Hyoung Kim, Seok Won Lim
(Dept. of Surgery, Hang Colorectal Clinic, Korea)

FP 9-6 **Pulse Oxymetry in the Bowel Anastomotic End in Colorectal Surgery**

Nikola Kolev, Anton Tonev, Krasimir Ivanov, Valentin [illegible]
(Dept. of General and Operative Surgery, Medical Univ. of Varna, Bulgaria)

FP 9-7 **The Advantage of Motion MRI on Surgical Treatment for Rectal Prolapse**

[illegible] Komiyama, Yasumi Araki, Toshihiro Noake, [illegible] Nakagawa, Yasue Iwatani, Hiroyuki Ozasa, Kentarou Naboyama, Masahiro Takano
(Dept. of Surgery, Kurume Coloproctology Center, Japan)

FP 9-8 **Diagnostic Efficacy of the Alvarado Score according to Age in Acute Appendicitis**

[illegible] Oh, Kwang-Ho Kim, Ryoung-Ah Lee, [illegible]
([illegible] of General Surgery, Ewha Womans [illegible] Hospital, Korea)

[Free Paper 10]	March 22	GBR
MIS	08:30-10:00	105

Moderators Kentarou Maeda (Fujita Health Univ., Japan)
Young Duck Kim (Inje Univ., Korea)

FP 10-1 **Single Port Laparoscopic Surgery Applied to Ileocecectomy in Survival Animal Models: Using Transabdominal Magnetic Anchoring System**

Chan Ho Park, Yong Beom Cho, Chul Young Chang, Hyeon Yong Lee, Hyoung Ran Kim, Yong Kwon Cho, Hae [illegible] Yun, [illegible] Kim, Seong Hyeon Yun, Woo Yong Lee, [illegible] Chun (Dept. of Surgery, Sungkyunkwan Univ. School of Medicine, Samsung Medical Center, Korea)

FP 10-2 **Single-access Laparoscopic Colorectal Surgery; Early Experience in Single Center**

Yong Kwon Cho, Seong Hyeon Yun, Hyoung Ran Kim, Chan Ho Park, Hyeon Yong Lee, Chul Young Chang, [illegible] Yong Beom Cho, Hee Cheol Kim, Woo Yong Lee, [illegible] (Dept. of Surgery, Sungkyunkwan Univ. School [illegible]

ISUCRS FREE PAPER

FP 10-3 **Right Hemicolectomy for Caecal Adenocarcino[illegible] Laparoendoscopic Single Site Surgery**

Maciej Michalik, [illegible]
Vascular Surgery, [illegible]

FP 10-4 **Single Incision Laparoscopic Colectomy : Initia[illegible] Experience**

Hyuk Hur, Byung Soh Min, Young [illegible]
Jeong Hyun Kang, Jeong Yeon Kim, [illegible]
Young Lee, Nam Kyu Kim (Dept. of [illegible]
College of Medicine, Korea)

FP 10-5 **Single Port Laparoscopic Ant. Resection (SPL[illegible] Colon Cancer: Transumbilical vs. Transanal R[illegible]**

Sang Chul Lee[1], Hyung Jin Kim [illegible]
Won Kyung Kang[2], Hyeon Min Cho[2], [illegible]
Hyuk Ahn[3], Jun Gi Kim[2], Seong Taek Oh [illegible]
of General Surgery, The Catholic [illegible]
Mary's Hospital, Korea, [2][illegible]
Surgery, The Catholic Univ. of Korea [illegible]
Hospital, Korea, [3]Colorectal Division [illegible]
Catholic Univ. of Korea, St. Mary's [illegible]
Division of General Surgery, The [illegible]
Vincent Hospital, Korea, [illegible]
Surgery, The Catholic Univ. of [illegible]
[illegible]Colorectal Division of [illegible]
Korea, Incheon St. Mary's [illegible]
of General Surgery, [illegible]
St. Mary's Hospital [illegible]

FP 10-6 **A Case of Transgastric Endoscopic Cholecyst[illegible] the Pig**

[illegible]
Soonchunhyang Univ., Korea, [illegible]
Soonchunhyang Univ., Korea)

FP 10-7 **Non-skin-incision Laparoscopic Surgery - Con[illegible] Laparoscopic Operation for Colorectal Cancer**

Jun-ichi Tanaka, Shungo Endo, [illegible]
Hidake, Fumio Ishida, [illegible]
Showa Univ. Northern Yokohama [illegible]

FP 10-8 **Laparoscopic Inter-sphincteric Resection**

Krasimir Ivanov, Nikola Kolev, [illegible]
(Dept. of General and Operative [illegible]
Varna, Bulgaria)

FREE PAPER

cal Significance of Fecal Occult Blood and Fecal CEA Rapid Test Kit for the Detection of Colorectal Cancer

[illegible] Kim[1], [illegible] Hong Kim[2], Jae Im Lee[2], Sang Chul Lee[2], [illegible] Min Cho[1], Kyungja Han[3], Seong Taek Oh[1]
[illegible] The Catholic Univ. of Korea, St. Vincent's [illegible] Dept. of Surgery, The Catholic Univ. of [illegible] Dept. of Clinical Pathology, The Catholic Univ. [illegible]

ysis of Delayed Postpolypectomy Bleeding in a ·rectal Clinic

[illegible], Seok Wan Lim
[illegible] Colorectal Clinic, Korea)

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[illegible] Kolev, Anton Tonev, Krasimir Ivanov, Valentin Ignatov
[illegible] and Operative Surgery, Medical Univ. of [illegible])

Advantage of Motion MRI on Surgical Treatment for :al Prolapse

[illegible] Yasumi Araki, Toshihiro Noake, Motonori [illegible], Hiroyuki Ozasa, Kentarou [illegible]
[illegible] Coloproctology Center, Japan)

ınostic Efficacy of the Alvarado Score according to in Acute Appendicitis

[illegible] Ho Kim, Ryoung-Ah Lee, Soon-Sub [illegible] of General Surgery, Ewha Womans Univ. [illegible] Hospital, Korea)

]	March 22 08:30-10:00	GBR 105

[illegible] Maeda (Fujita Health Univ., Japan)
[illegible] Kim (Inje Univ., Korea)

ıle Port Laparoscopic Surgery Applied to cecectomy in Survival Animal Models: Using ısabdominal Magnetic Anchoring System

[illegible] Park, Yong Beom Cho, Chul Young Chang, Hyeon [illegible] Ran Kim, Yong Kwon Cho, Hae-Ran Yun, [illegible] Seong Hyeon Yun, Woo Yong Lee, Ho-Kyung [illegible] of Surgery, Sungkyunkwan Univ. School of [illegible] Samsung Medical Center, Korea)

ıle-access Laparoscopic Colorectal Surgery; Early erience in Single Center

[illegible], Seong Hyeon Yun, Hyoung Ran Kim, Chan [illegible], Hyeon Yong Lee, Chul Young Chang, Hae-Ran Yun, [illegible], Hee Cheol Kim, Woo Yong Lee, Ho-Kyung [illegible] Surgery, Sungkyunkwan Univ. School of [illegible] Medical Center, Korea)

ISUCRS FREE PAPER

FP 10-3 Right Hemicolectomy for Caecal Adenocarcinoma through Laparoendoscopic Single Site Surgery

Maciej Michalik [illegible]

FP 10-4 Single Incision Laparoscopic Colectomy : Initial Experience

[illegible] Nam Kyu Kim (Dept. of Surgery, Yonsei Univ. [illegible] of Medicine, Korea)

FP 10-5 Single Port Laparoscopic Ant. Resection (SPLS-AR) for Colon Cancer: Transumbilical vs. Transanal Retrieval

[illegible] Colorectal Division of General Surgery, The Catholic Univ. of Korea, Seoul St. Mary's Hospital, Korea, [illegible] Colorectal Division of General Surgery, The [illegible] St. Mary's Hospital, Korea)

FP 10-6 A Case of Transgastric Endoscopic Cholecystectomy of the Pig

[illegible]

FP 10-7 Non-skin-inçision Laparoscopic Surgery - Complete Laparoscopic Operation for Colorectal Cancer (CLOC)

Jun-ichi Tanaka, Shungo Endo, [illegible], Fumio Ishida, Shin-ei Kudo [illegible] Northern Yokohama Hospital, [illegible]

FP 10-8 Laparoscopic Inter-sphincteric Resection

Krasimir Ivanov, Nikola Kolev, Anton Tonev, [illegible] (Dept. of General and Operative Surgery, Medical Univ. of [illegible], Bulgaria)

FREE PAPER

	March 22 10:30-12:00	GBR 101

...Hospital, Thailand)
...(Ilsan Hospital, Korea)

...xpandable Metalic Stent Insertion for Colon and ...m

...Toshiyuki Enomoto, Kazuhiro Takabayashi, ... Nakamura, Miwa Katagiri, Sayaka Nagao, ... Watanabe, Koji Asai, Yasushi ... (Third Dept. of Surgery, Toho Univ ... Center, Japan)

...logic Outcomes of Curative Resection for Left-sided ...n Cancer Obstruction Followed by Stent Insertion: ...m Result in a Single Center

...The Catholic Univ. of Korea, Korea)

...omes of Resection of the Primary Tumour vs. Primary ...sion or Stenting without Resection in Patients with ...lly Resectable and Obstructing Left Colo-rectal ...inoma in the Presence of Systemic Metastasis

...Hung, Vicky Ka Ming Li, Patrick Ying Yu Lau, ... Andrew Wai Chun Yip ... Surgery, Kwong Wah Hospital, Hong Kong)

...mparison of Palliative Managements with Stenting or ...ection for Removable Left Sided Primary Colon Cancer

...Kwon Cho, Hyung Ran Yun, Hee Cheol ... Yun, Woo Yong Lee, Ho-Kyung Chun ... Sungkyunkwan Univ. College of Medicine, ...

...lity Assurance of Pelvic Autonomic Nerve Preserving ...gery

... Hiroyoshi Matsuoka[1], Takaaki Kobayashi[1] ... Ayako Tonari[2], Makoto Takayama[1] ... Dept. of Gastrointestinal Surgery, Kyorin ... Radiation Oncology, Kyorin Univ. ...

...lity of Sexual Function after Rectal Cancer Treatment

... Masaaki Ito, Yusuke Nishizawa, Akihiro ... Sugito, Norio Saito (Colorectal and ... Division, National Cancer Center Hospital East, ...

...days Morbidity and Mortality Following Laparoscopic ...ctal Excision for Adenocarcinoma

... Maciej Michalik, Michal Orlowski (Dept. of ... Surgery, Ceynowa Hospital, Poland)

ISUCRS FREE PAPER

FP 11-8 Robotic-assisted vs. Laparoscopic Surgery for Low Rectal Cancer: Short-term Outcomes Analysis of a Case-matched Study

... School of Medicine ...

[Free Paper 12] Benign Anorectal Disease	March 22 10:30-12:00	GBR 102

FP 12-1 A Novel Combination of Topical Nifedipine Plus Metronidazole for Topical Therapy of Anal Fissure

... Dept. of Surgery, Aristotelian Univ., Greece)

FP 12-2 Biologic Foreign Body Plug for Complex Perianal Fistula

... Hadassah Hebrew Univ. Medical Center, Israel)

FP 12-3 An Irrigation Technique to Aid in the Mucosal Dissection in the Delorme Operation

Bruce Waxman, ... William ... (Academic Surgical Unit, Southern Health, Aust...)

FP 12-4 Excision of Pilonidal Sinus and Repair with Rhomboid Flap – Our Experience

FP 12-5 The Analysis of 537 Cases of Neurogenic Intrapelvic Syndrome

Masahiro Takano ... Takano Hospital, Japan)

FP 12-6 Nd: YAG Laser Vaporisation in Human Papillomavirus Manifestations

FP 12-7 Radiowave Ablation and Mucopexy in Grade III Hemorrhoids- Early and Long-term Outcome

... (Dept. of Proctology ...

ОСТЪР НЕКРОТИЧЕН ПАНКРЕАТИТ
Анализ на болни за десетгодишен период

Р. Маджов, Иванов К., Игнатов В., Божков В., Колев Н.

Използвани съкращения:

ОП - остър панкреатит
НП - некротичен панкреатит
ПА - панкреатичен абсцес
КТ - компютърна томография
ГИ - гастроинтестинален
ОЖП - общ жлъчен проток
ЕРХПГ - ендоскопска ретроградна холангиопанкреатография

През последното десетилетие се отбелязва съществен напредък в разбирането за патофизиологията и цялостната диагностично-терапевтична стратегия при пациентите с Остър панкреатит (ОП). В контраст на ранната хирургична интервенция в миналото, понастоящем е налице изразена тенденция към интензивно лечение в началните периоди, по- консервативен подход и/или мини-инвазивни процедури.

Днес по – голямата част от пациентите преживявят първата фаза на тежкия панкреатит благодарение на значителния напредък в интензивното лечение. Това обаче води до увеличаване и на риска от развитието на късен сепсис и усложнения.

Клиничното протичане на Острия панкреатит варира от леки, оточни до тежки некротични форми (15 -25% от всички по литературни данни).

Тежестта на ОП е свързана с:

- ✓ Либерацията на вазоактивни и токсични субстанции;
- ✓ Развитието на системна полиорганна (белодробна, сърдечно-съдова и бъбречна) недостатъчност;
- ✓ Обемът на некротичния процес – панкреатична паренхимна некроза и/или мастно-тъканна некроза в ретроперитонеалното пространство;
- ✓ Бактериалната контаминация (абсцеси, флегмони, псевдокисти и фистули).

Основните *рискови фактори* определящи независимо един от друг изхода от тежките некротични форми на панкреатит са:

- ранното развитие на мултиорганна недостатъчност;
- размерът на некрозата (> 50%);
- инфектирането на некрозата (40 до 70% от болните с НП).

Тежките форми на остър панкреатит се развиват най-често в две фази:

- Първите две седмици се характеризират с развитието на SIRS и съпроводено от: плевропулмонални, сърдечно-съдови и бъбречни усложнения.

OUR EXPERIENCE IN LAPAROSCOPIC HERNIAL TREATMENT

Authors: G. Ivanov, A. Tonev, Kr.Ivanov, N. Kolev, V. Ignatov

University: MU - Varna

ICMS 2010 / OP 17 Surgery

Abstract:

BACKGROUND: Hernia of anterior abdominal wall are frequent pathologies in surgical practice. Laparoscopic hernia repair may be an alternative to open mesh repair because it avoids a large abdominal incision, and that reduces pain and hospital stay. AIM: We report our one year experience, in first clinic of surgery, "St. Marina" University hospital, Varna, on laparoscopic hernioplasty using the intraperitoneal onlay mesh repair in 26 patients. MATERIAL AND METHOD: 10 patients had an inguinal hernia, 3 of which were bilateral. In 2 of the patients hernia was recurrent. 10 patients had an umbilical hernia and 6 - paraumbilical hernia. The hernia repair was performed by using a mesh. The prostheses were fixed with titanium spiral tacks - Protack, Auto Suture- EndoHernia. RESULTS: No intraoperative complications occurred and no conversion was necessary. Average operating time was 52 minutes. We observe two minor postoperative complications - seromas. Three patients needed analgesics after the first 24 hours. Mean hospital stay was 36 hours - minimum of 24 and a maximum of 76 hours. CONCLUSIONS: The results of our experience indicate that the intraperitoneal onlay mesh repair may be a feasible, effective procedure in the treatment of hernias. It shows fewer complications and shorter hospital stays, and possibly a shorter surgical time. However the limited series and the short follow-up ask for randomized prospective long-term studies to definitely ascertain the true incidence of recurrence and therefore the effectiveness of this attractive procedure.

Keywords: hernia, laparoscopic, mesh

Contact authors at: ghivanov@abv.bg

OUR EXPERIENCE IN SURGICAL TREATMENT OF HIATAL HERNIA

Authors: Y. Kalcheva, A. Tonev, G. Ivanov, A. Zlatarov, N. Kolev, V. Ignatov, K. Ivanov

University: MU - Varna

ICMS 2010 / OP 12 Surgery

Abstract:

BACKGROUND The hiatus hernia term refers to conditions in which elements of the abdominal cavity herniated into the mediastinum. The most widely used classification recognizes four types of hiatus hernia. Most patients with clinically significant reflux have a hiatal sliding hernia. The gastro esophageal reflux may lead to esophagitis, ulcerations, and Barrett's esophagus. AIM The aim of this report is to define the medical condition described as hiatus hernia, with its varieties and consequences - the Gastro Esophageal Reflux Disease (GERD) and to compare results from open and laparoscopic approach of treatment. METHODS We analyze retrospectively 84 consecutive patients, treated for presence of hiatal hernia in Department of Surgery, University hospital "St. Marina" from 2001 to 2009. They all were evaluated by barium swallow, 24h pH monitoring, endoscopy with biopsy. The medical treatment involves conservative and surgical methods. RESULTS In 9 years period 84 operations are performed. The reviewed patients were as follows: 58 female patients with mean age 46, and 26 male with mean age 54. From 2001 till late spring of 2005 the open procedure is preferred - 18 open procedures. After that, the laparoscopic procedure is made by choice - 66 laparoscopically performed operations, the open manner is only performed if complications had occurred during a laparoscopically started procedures. We report the short and long term result from patient's treatment. CONCLUSION The open and laparoscopical approaches for the treatment of hiatal hernia propose similar results. Our clinic adopt the Nissen-Rossety fundoplication procedure for the both approaches with advantage of the mini-invasive one who is characterized with lower incidence of incisional hernias and lower need of reoperations and dilatations. The laparoscopic fundoplication has become the gold standard for treatment of hiatus hernia of the clinic.

Keywords: Hiatal hernia; open - aparoscopic approach

Contact authors at: julia.kalcheva@gmail.com

OUR EXPERIENCE IN LAPAROSCOPIC ADRENALECTOMY

N. Kolev, V. Ignatov, A. Tonev, G. Ivanov, A. Zlatarov, T. Kirilova, V. Bojkov, and K. Ivanov

Department of General and Operative Surgery

Medical university of Varna

BACKGROUND:

Laparoscopic adrenalectomy (LA) has become the procedure of choice to treat functioning and non-functioning adrenal tumours. With improving experience, large adrenal tumours (> 5 cm) are being successfully tackled by laparoscopy.

MATERIALS AND METHODS:

Thiry-eight laparoscopic adrenalectomies was performed for adrenal lesions during the period 2006 to 2012 were reviewed.

RESULTS:

A total of 35 laparoscopic adrenalectomies were done in 32 patients. The mean tumour size was 5.03 cm (2-11 cm). Four patients had tumour size more than 8 cm. The lesions were localised on the right side in 17 patients and on the left side in 15 patients with bilateral tumours in 3 patients. Functioning tumours were present in 32 of the 46 patients. The average blood loss was 112 ml (range 20–400 ml) with the mean operating time being 144 min (range 45 to 270 min). Three patients underwent conversion to open procedure. Three of the 32 patients (9.52%) on final histology had malignant tumours.

CONCLUSION:

LA is safe and feasible for large adrenal lesions. Mere size should not be considered as a contraindication to laparoscopic approach in large adrenal masses. Graded approach, good preoperative assessment, team work and adherence to anatomical and surgical principles are the key to success.

Journal of IMAB - Annual Proceeding (Scientific Papers) 2010, vol. 16, book 1A

YKL-40- A NEW DIAGNOSTIC BIOMARKER FOR BENIGN BREAST DISEASES AND BREAST CANCER

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Benign breast diseases encompass a wide spectrum of lesions, which raise a lot of questions about their classification, diagnosis, prognosis and surgical treatment. The aim of this study is to measure the serum level of YKL-40 in cases of different groups of benign breast diseases, to compare it to the level of healthy women as well as to those with breast cancer and to examine its tissue expression after surgical treatment. We use it as a diagnostic marker and as a criterion for differential diagnosis.
Forty nine (49) patients with benign breast diseases and twenty (20) patients with breast cancer were examined. All of them had their serum level of YKL-40 measured preoperatively and its tissue expression examined immunohystochemically after the surgical intervention. There were significant differences in both concentration and tissue expression of this marker in patients with different groups of benign breast diseases and breast cancer. YKL-40 can be an important biomarker in the diagnosis and differential diagnosis of breast diseases.
Key words: breast, YKL-40, benign diseases, biomarker

Journal of IMAB - Annual Proceeding (Scientific Papers) 2010, vol. 16, book 1A

INVESTIGATION OF SOME IMMUNOHYSTOCHEMICAL INDICATORS IN BENIGN SURGICAL DISEASES OF THE BREAST

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Benign breast diseases are a big group of lesions affecting women of all ages from puberty to old age. Some of them have the potential to become malignant in a different period of time. In this article we investigate the immunohystochemical expression of E-kadherin and p-63 in patients who underwent surgery in our clinic. The lesions were of different subgroups of benign diseases. The expressions of the above mentioned markers can be of use as a criterion for early diagnosis and surgical treatment of the lesions before they have eventually become malignant. We investigated 45 women of the three subtypes of benign diseases – nonproliferative, proliferative without atypia and proliferative with atypia (the so called premalignant diseases). We compared the expression of E-kadherin and p-63 with their expression in patients with breast cancer and a control group of women. We used the results of immunohystochemical analysis of these markers, together with other clinical features, as a criterion for dividing the patients in groups of high-risk and no-risk of subsequent breast cancer.
We believe that the analysis of the expression of E-kadherin and p-63 will contribute to earlier diagnosis of breast cancer and its timely surgical treatment.
Key words: E-kadherin, p-63, benign breast diseases

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PERITONEAL METASTASES IN COLORECTAL CANCER

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The peritoneal surface is affected in 10%-15% (synchronous metastases) of the patients with colorectal cancer and in 20%-25% of the patients with recurrence (metachronous metastases). (1) The peritoneal metastases take the second

place after the hepatic metastases from colorectal cancer. The peritoneal metastases develop after direct implantation of cancer cells by one of the following mechanisms: 1) spontaneous intraperitoneal dissemination of cancer cells from T4 colorectal cancer invasion of the serosa; 2) extravasation of cancer cells after colon perforation due to obstructing cancer 3) iatrogenic cancer perforation caused by resection of the colon; 4) dissemination of cancer cells through the descending venous and lymph vessels during resection of the colon. In conclusion, the standard approach in the treatment of patients with peritoneal metastases is the systematic chemotherapy. Nevertheless there is evidence that the patients with aggressive cancer disease benefit from aggressive cytoreductive surgery and intraperitoneal chemotherapy. Furthermore additional studies are needed to establish the optimal use of contemporary aggressive methods in the treatment of peritoneal carcinomatosis.

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DO WE NEED A CHANGE IN STRATEGY FOR TREATMENT OF IV STAGE COLO-RECTAL CANCER

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Introduction: In the past decades the improvement of surgical technologies and modern adjuvant therapy lead to revolutionary changes in multimodal approach in treatment of liver metastatic lesions from colorectal cancer. The achieved results are encouraging and the surgeons receive the opportunity for individual approach to every patient for maximizing the outcome. "Which approach is suitable for which patient?" is already not a disputable question. The classic surgical approach is consist of surgical treatment of the primary tumor at first place and after that treatment of liver metastases is commenced. Despite of that in many patients the metastatic process progresses and obstructs the sanitation of the primary lesion. Upon this some authors create strategy, which includes as first step powerful neo-adjuvant chemotherapy, as second step is commenced resection of the metastases and as last level – resection of the primary tumor. According to some authors this inverted "approach" in the treatment of colorectal cancer leads to better results in respectability and survival rate. This approach is indicated in patients with non-obstructive tumors. In the basis of this "inverted approach" stays the opinion that the patient dies from the complications, connected with metastatic disease.

Conclusion: The treatment of liver metastases from colorectal cancer is a dynamic and continuing process. The multimodal approach allows building individual strategy in the treatment every single patient.

Journal of IMAB - Annual Proceeding (Scientific Papers) 2010, vol. 16, book 1A

A CASE OF ENCAPSULATED NEUROMA

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Palisaded and encapsulated neuroma is firstly described by Reed et al. 1972.

This uncommon tumor, usually presents as a solitary mass on the face of middle-aged patients. It has a fine capsule fascicles of neurons interwine together. There is palisading arrangement of the niclei.

We present a case with Palisaded and encapsulated neuroma in 56 years old male,with nonpainful lesions on the basis of the nose - right side. In three months it enlarged its diameter. No other serious systemic diseases are announced.

ЛАПАРОСКОПСКА ИНТЕРСФИНКТЕРНА РЕЗЕКЦИЯ

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ВЪВЕДЕНИЕ: Исторически радикалната резекция за карцином на дисталния ректум се свързва с извършването на абдомино-перинеална резекция. Въвеждането на по-близки до тумора дистални резекционни граници, прилагането на неоадювантната терапия и интер-сфинктерната резекция прави възможно извършването на сфинктеро-запазващи операции при болни с ниски ректални тумори. През последното деситилетие, започна да се прилага по-широко метода на интерсфинктерната резекция, целящ едновремено сфинктеро-съхраняване и некомпрометиране на онкологичната радикалност. Създадени са стандарти за приложение на метода, като са уточнени неговите индикации и контраиндикации. Отворен остава въпросът дали увеличения дял на интерсфинктерните резекции ще доведе до: 1- намаляване процента на АПР или 2- намаляване процента на предните резекции. С широкото налагане тоталната мезоректална ексцизия (TME) [1], концепцията на спесимен ориентирана хиругия доведе до подобряване на резулатите от оперативното лечение на ректалния рак. [2]. Техническите постижения в областта на хирургичния инструментариум доведе до промени във височната на резекция. [3] Необходимото отстояние може да бъде намалено до 1 см от тумора.[4] Вследствие на това проблеми като качеството на живот и сексуалната активност излязоха на преден план, като наличието или отсъствието на дефинитивна колостома се определя като основен фактор, влияещ върху качеството на живот според повечето автори[5]. Честотата на абдомено-перинеална резекция се идентифицира като независим маркер за качество на живот след оперативно лечение на болни с нисък рак на ректума.[6] Развитието на методите за ресторативна хирургия при рак на ректума с ексцизия на част или целия сфинктерен апарат, първоначално приложени при болни с възпалителни заболявания на червата, [7] и реконструкцията чрез ръчна коло-анална анстомоза разширяват индикациите за прилагане на резекции със запазване нормалния път на дефекация. От друга страна прилагането на мини-инвазивни, лапароскопски методи методи при оперативно лечение на коло-ректален рак подобрява следоперативното възстановяване без да компрометира функционалните и онкологични резултати, като това е доказано в голямо количество проучвания, публикувани през последните 5 години.[54] Създадени са стандарти за приложение на метода като са уточнени неговите индикации и контраиндикации. Отворен остава въпросът дали увеличения дял на интерсфинктерните резекции ще доведе до: 1- намаляване процента на АПР или 2- намаляване процента на предните резекции. Резулатите на редица автори показват сигурност и надеждност при прилагането на лапароскопска резекция и лапароскопска екстирпация. Комбинирането на двата подхода – интерсфинтерна резекция със мини-инвазивен, лапароскопски подход би довело до намаляване на процентното съотношение на АПР с по-бързо възстановяне на болните в следоперативният период. [55]

Поставихме си за цел да установим какви доказателства за приложимостта на метода на интер-сфинктерна резекция. Предлагаме комбинирането му с лапароскопски достъп, като докладваме нашия опит.

МЕТОД: В достъпната литератури намерихме сигурни доказателства за Приложеният от нас метод на лапароскопска ИСР добавя миниинвазивност към всички положителни качества на конвенционалната ИСР.

Индикации: Основна индикация за прилагане на метода на ИСР при радикално лечение на нисък рак на ректума е намирането на баланса между онкологичните и фун-

МУЛТИМОДАЛЕН ПОДХОД ПРИ IV СТАДИЙ НА КОЛОРЕКТАЛЕН РАК - ПОГЛЕДА НА ХИРУРГА.

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Въведение: В последните години подобрената на хирургична техника и модерна адювантна терапия доведе до революционни пормени в мултимодалния подход за лечението на болни в IV стадий колоректален рак. Постигнатите резултати са окуражаващи и хирурзите получават възможността за индивидуален подход спрямо всеки пациент за подобряване на резултатите. „Кое е най-доброто за този пациент" вече не въпрос без отговор. Класическият подход се състои от хирургично лечение на първичния тумор на първо място и последващо лечение на метастазите. Въпреки това в много случаи метастични процес прогресира и затруднява санирането на първичната лезия. Във връзка с това някои автори създават стратегия, която включва като първа стъпка агресивна неоадювантна химиотерапия, като втора стъпка се обсъжда резекция на метастазите и на последно място резекция на първичния тумор. Според някои автори тази конверсия в стратегията на лечение на IV стадий колоректален рак води до по-добри резултати по отношение на резектабилност и преживяемост. Този подход е показан при пациенти с необструктивни чревни тумори. На основата на „обратния подход" се изгражда мнението, че танатогенезата е свързана в по-голяма степен с усложненията на метастатичната болест от колкото с усложненията на първичния тумор.

Заключение: Лечението на IV стадий колоректален рак е динамичен процес. Мултимодалният подход включва създаването на индивидуална стратегия за всеки отделен пациент.

УВОД

Колоректалният рак е третият най-често срещан рак на Запад (Европа и САЩ) и втори по честота на Изток (Япония) (*1, 2*). Чернодробни метастази развиват 50% от болните с колоректален рак и са причина за смърт при 2/3 от тях (*3*). Начало на модерната ера на чернодробната резекционна хирургия поставят Lortad-Jacob през 1952г. с публикациите си върху анатомичните хепатектомии. Резултатите са били далеч от окуражаващи.

Първото мултицентрово проучване върху достатъчно голям брой пациенти е на Foster и Berman през 1977г. включващо 621 чернодробни резекции. Съвременните периоперативни грижи и хирургични техники значително подобряват сигурността при извършване на чернодробна хирургия, като смъртността за оперираните в университетски болници е между 1%-5%. Времената се променят, а с тях се сменят и терапевтичните стратегии. Съвременната стратегия за превръщане на нерезектабилните метастази в резектабилни след провеждане на химиотерапия прави прелом в поведението спрямо метастазите от колоректален рак.

Пет-годишната преживяемост след чернодробна резекция е между 25%-58%, сравнено с 0%-5% при неоперирани пациенти (*4,5,6*).

Таблица 1.

Автор	Година на публикуване	Години включени в проучването	Петгодишна преживяемост
Huges	1988	1948-1985	24%
Choti	2002	1993-1999	58%
Tanaka	2008	1990-2006	45.7%

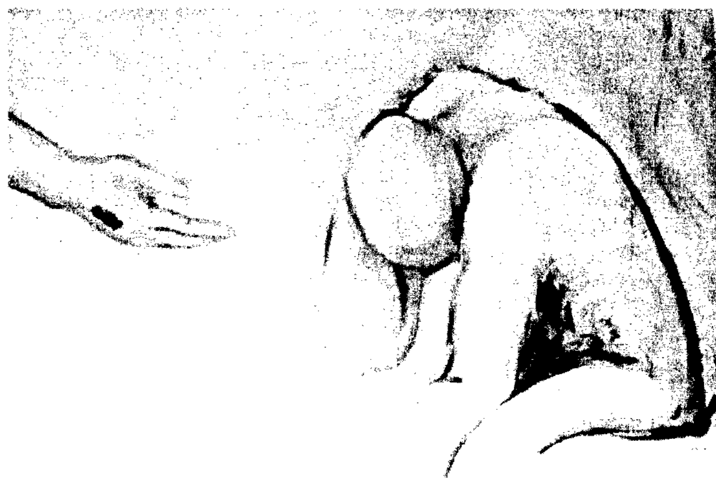
РЕЗЕКЦИОННА ХИРУРГИЯ НА ЧЕРЕН ДРОБ ПРИ МЕТАСТАЗИ ОТ КОЛОРЕКТАЛЕН РАК – ЕДНОГОДИШЕН ОПИТ

К. Иванов, Н. Колев, В. Игнатов, А. Тонев, Пл. Михайлов

Първа клиника по хирургия МБАЛ „Св. Марина"

ВЪВЕДЕНИЕ

Първият въпрос, който е уместно да се зададе при установяването на чернодробни метастази е: „Наличието на чернодробни метастази означава ли късно поставена диагноза?"



фиг. 1

Каква е ролята на хирурга в тази ситуация? – без намесата на хирурга пациентът вероятно е обречен.

Екипът

Колоректалният рак е третият най-често срещан рак на Запад (Европа и САЩ) и втори по честота на Изток (Япония) (*1,2*). Чернодробни метастази развиват 50% от болните с колоректален рак и са причина за смърт при 2/3 от тях (*3*)

Начало на модерната ера на чернодробната резекционна хирургия поставя Lortad-Jacob през 1952г. с публикациите си върху анатомичните хепатектомии. Резултатите са били далеч от окуражаващи.

FREE PAPER

...cal Significance of Fecal Occult Blood and Fecal CEA ... Rapid Test Kit for the Detection of Colorectal Cancer

... Kim[1], ...o Hong Kim[2], Jae Im Lee[2], Sang Chul Lee[2], ... Min Cho[1], Kyungja Han[3], Seong Taek Oh[1]
... The Catholic Univ. of Korea, St. Vincent's ... Dept. of Surgery, The Catholic Univ. of ... Dept. of Clinical Pathology, The Catholic Univ. ...

...ysis of Delayed Postpolypectomy Bleeding in a ...rectal Clinic

..., Seok Wan Lim
(... Colorectal Clinic, Korea)

...e Oxymetry in the Bowel Anastomotic End in Colo...l Surgery

... Kolev, Anton Tonev, Krasimir Ivanov, Valentin Ignatov
(... and Operative Surgery, Medical Univ. of ... Bulgaria)

... Advantage of Motion MRI on Surgical Treatment for ...al Prolapse

..., Yasumi Araki, Toshihiro Noake, Motonori ..., Hiroyuki Ozasa, Kentarou ...
(... Kurume Coloproctology Center, Japan)

...nostic Efficacy of the Alvarado Score according to ... in Acute Appendicitis

... Ho Kim, Ryoung-Ah Lee, Soon-Sub ...
(Dept. of General Surgery, Ewha Womans Univ. ... Hospital, Korea)

...	March 22	GBR
	08:30-10:00	105

... Maeda (Fujita Health Univ., Japan)
... Kim (Inje Univ., Korea)

...le Port Laparoscopic Surgery Applied to ...cecectomy in Survival Animal Models: Using ...sabdominal Magnetic Anchoring System

..., Yong Beom Cho, Chul Young Chang, Hyeon ... Hyoung Ran Kim, Yong Kwon Cho, Hae-Ran Yun, ..., Seong Hyeon Yun, Woo Yong Lee, Ho-Kyung ...
(Dept. of Surgery, Sungkyunkwan Univ. School of ... Samsung Medical Center, Korea)

...le-access Laparoscopic Colorectal Surgery; Early ...erience in Single Center

... Cho, Seong Hyeon Yun, Hyoung Ran Kim, Chan ..., Hyeon Yong Lee, Chul Young Chang, Hae-Ran Yun, ..., Hee Cheol Kim, Woo Yong Lee, Ho-Kyung ...
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Maciej Michalik, ...

FP 10-4 Single Incision Laparoscopic Colectomy : Initial Experience

..., Young Wan Kim, ..., Nam Kyu Kim (Dept. of Surgery, Yonsei Univ. College of Medicine, Korea)

FP 10-5 Single Port Laparoscopic Ant. Resection (SPLS-AR) for Colon Cancer: Transumbilical vs. Transanal Retrieval

Sang Chul Lee, ..., Hyun Min Cho, ..., Seong Taek Oh (Colorectal Division of General Surgery, The Catholic Univ. of Korea, ... St. Mary's Hospital, Korea, Colorectal Division of General Surgery, The Catholic Univ. of Korea, Seoul St. Mary's Hospital, Korea, Colorectal Division of General Surgery, The Catholic Univ. of Korea, St. Mary's Hospital, ...
... of General Surgery, The Catholic Univ. of Korea, ... St. Mary's Hospital, Korea)

FP 10-6 A Case of Transgastric Endoscopic Cholecystectomy of the Pig

Sung Woo Cho, Young ... Kim, ...

FP 10-7 Non-skin-incision Laparoscopic Surgery - Complete Laparoscopic Operation for Colorectal Cancer (CLOC)

Jun-ichi Tanaka, Shungo Endo, ..., Fumio Ishida, Shin-ei Kudo ... Northern Yokohama Hospital, ...

FP 10-8 Laparoscopic Inter-sphincteric Resection

Krasimir Ivanov, Nikola Kolev, Anton Tonev, ...
(Dept. of General and Operative Surgery, Medical Univ. of Varna, Bulgaria)

PO.116 Piggy back method – advances and features
Nicola Vladov (Bulgaria)

PO.117 Liver resection for liver metastases from colorectal cancer
Nikola Kolev, K.Ivanov. V. Ignatov, A. Tonev (Bulgaria)

PO.118 Two case reports of malignant melanoma of the esophagus performed surgical resection after systemic chemotherapy including local injection of interferon beta
Norihiko Sugisawa (Japan)

PO.119 Modified FOLFIRI (l-LV, 5-fluorouracil and irinotecan) therapy for Japanese patients with metastatic colorectal cancer
Norio Yukawa (Japan)

PO.120 large duodenal GIST tumour presenting with acute bleeding managed by Whipple resection
Norman Oneil Machado (Oman)

PO.121 Neutropaenic enterocolitis post chemotherapy for carcinoma of the breast
Norman Oneil Machado (Oman)

PO.122 The choice of the method of operation in surgical treatment of complicated megacolon.
O. Gibradze, B. Mosidze, D. Tevdoradze (Georgia)

PO.123 The Accuracy of the Surgical Diagnosis of Serosal Invasion by Gastric Carcinoma and its Affecting Factors
Oh Jeong (Korea)

PO.124 Evaluation of clinical and evolutive features of postoperative external duodenal fistulas
Padureanu Sergiu (Romania)

PO.125 Toxic advanced glycation end-products in hepatocellular carcinoma
Park Kyung Hwa (Japan)

PO.126 LigaSure device for hepatic resection
Patrlj Leonardo, Kopljar Mario (Croatia)

PO.127 An epithelial cyst in an intrapancreatic accessory spleen: a case report.
Pohnan R, Ryska M, Dolezel R (Czech Republic)

PO.128 Isolated complete avulsion of the gallbladder. Near traumatic cholecystectomy.
Psarras K, Lalountas MA, Paulidis TE, Symeonidis NG, Tsitlakidis A, Paulidis ET, Sakantamis AK. (Greece)

PO.129 Inadvertent insertion of a nasogastric tube into the brain. Case report and review of the literature.
Psarras K, Lalountas MA, Symeonidis N, Baltatzis M, Ballas KD, Paulidis TE, Sakantamis AK. (Greece)

PO.130 Cystic lymphangioma of the pancreas
Psarras K1, Lalountas MA1, Ballas KD1, Symeonidis NG1, Rafailidis SF1, Paulidis TE1, Koukoulis G2, Sakantamis AK1. (Greece)

PO.131 Serum insulin like growth factor-1 (IGF-1), insulin like growth factor-2 (IGF-2) and insulin like growth factor binding protein-3 (IGFBP-3) as parameters in the assessment of liver dysfunction in patients with hepatic cirrhosis and in the diagnosis of hepatocellular carcinoma.
Rania Naguib Abdel Mouteleb (Egypt)

PO.132 ABO-Incompatible living donor liver Tx and the need to perform such procedures in the Western countries
Roberto Troisi (Belgium)

PO.133 Morbidity and mortality after minor and major laparoscopic liver resections
Roberto Troisi (Belgium)

PO.134 Volumetric and Morphlogical Analysis of Intraductal Papillary Mucinous Neoplasm of the Pancreas (IPMN) by using Computed Tomography (CT) and Magnetic Resonance Imaging (MRI)
Saijiro Murayama (Japan)

PO.135 Pancreaticoduodenectomy and multiorgan en-bloc resection with graft reconstruction of IVC leiomyosarcoma
Sang Tae Choi (Korea)

PO.136 Clinical features of pneumocystis carinii pneumonia in adult liver transplant recipients
Seonok Oh (Korea)

P07

Burnout syndrome in members of explantation surgical team

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Background: The Burnout syndrome in the surgical explantation team members is formed as a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are stressing and emotional.
Methods: We applied a random stratified sampling method, taking in measure the personal responsibility, specialty and type of employment, in 11 members of surgical explantation team who completed an anonymous questionnaire that included several aspects related to burnout; the MBI scale, questions related to occupational stress, and questions pertaining to self image.
Results: Almost half (46%) of the 11 participants believed that their job is stressful. In total, 27% of participants met Maslach's criteria for burnout. The point prevalence of burnout was as follows: (1) 9% of males and 18% of females (2) 27% who were married, 18% who were single and 36% who were separated. Gender was found to be associated with the level of personal accomplishment (chi-squared test; $p = 0.049$), as 18% of men compared with 27% of women reported high personal accomplishment. The number of years of working as a member of explantation team correlated negatively ($r = -0.229$, $p = 0.004$) with the total depersonalization score. Regression analysis showed that the perception that the job is stressful ($p < 0.001$) and the low salary ($p = 0.016$) were significant predictors of high emotional exhaustion scores, while age group ($p = 0.027$) predicted high scores of depersonalization and the employment sector ($p = 0.050$) as well as the low salary predicted high personal accomplishment scores.
Conclusions: Burnout levels in members of Surgical explantation team ranged from low to moderate.

P08

The universal SOP for exlpantation of tissues – does it satisfy the specific needs of regional centres

Nikolay Mitev, Nikola Kolev, A. Tonev, Krassimir Ivanov, V. Ivanov, V. Ignatov, G. Ivanov

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In Europe, the European Commission Directives provide a statutory regulatory framework for explanting donor's tissues, against which Competent Authorities in each Member State is required to licence or accredit tissue facilities. The SOP development process is critical to the successful implementation of SOPs. It should be an inclusive process that considers the input of everyone with an interest in the procedure's success. Write procedures without feedback from final executioners or technical supporters run the risk of producing a poorly results. Evaluating of the opinion of every explanting surgical team will increase the quality levels and will produce better SOPs. The explanting of tissues is an SOP which is a written document or instruction detailing all steps and activities of a process or procedure. These should be carried out without any deviation or modification to guarantee the expected outcome. Any modification or deviation from a given SOP should be thoroughly investigated and outcomes of the investigation documented according to the internal deviation procedure. Sometimes the General SOP is not so practical to the regional situations and conditions.
It is a mile stone which have to be obligatory for branch of one international tissue bank, but also have to be more adaptive and to take care to local evolutional processes.

P07

Burnout syndrome in members of explantation surgical team

Nikola Kolev, A. Tonev, Krassimir Ivanov, Nikolay Mitev, V. Ivanov, V. Ignatov, A. Zlatarov

Department of Surgery, University Hospital "St. Marina, Varna; Bulgaria

Background: The Burnout syndrome in the surgical explantation team members is formed as a state of physical, emotional and mental exhaustion caused by long-term involvement in situations that are stressing and emotional.
Methods: We applied a random stratified sampling method, taking in measure the personal responsibility, specialty and type of employment, in 11 members of surgical explantation team who completed an anonymous questionnaire that included several aspects related to burnout; the MBI scale, questions related to occupational stress, and questions pertaining to self image.
Results: Almost half (46%) of the 11 participants believed that their job is stressful. In total, 27% of participants met Maslach's criteria for burnout. The point prevalence of burnout was as follows: (1) 9% of males and 18% of females (2) 27% who were married, 18% who were single and 36% who were separated. Gender was found to be associated with the level of personal accomplishment (chi-squared test; $p = 0.049$), as 18% of men compared with 27% of women reported high personal accomplishment. The number of years of working as a member of explantation team correlated negatively ($r = -0.229$, $p = 0.004$) with the total depersonalization score. Regression analysis showed that the perception that the job is stressful ($p < 0.001$) and the low salary ($p = 0.016$) were significant predictors of high emotional exhaustion scores, while age group ($p = 0.027$) predicted high scores of depersonalization and the employment sector ($p = 0.050$) as well as the low salary predicted high personal accomplishment scores.
Conclusions: Burnout levels in members of Surgical explantation team ranged from low to moderate.

P08

The universal SOP for exlpantation of tissues – does it satisfy the specific needs of regional centres

Nikolay Mitev, Nikola Kolev, A. Tonev, Krassimir Ivanov, V. Ivanov, V. Ignatov, G. Ivanov

Department of Surgery, University Hospital "St. Marina, Varna; Bulgaria

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P09

Affect of the body temperature of the donor over the technical execution of the explantational procedure

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Introduction: The influence of body temperature over the explantation technique and error rate is a factor not yet studied in the general literature. Defining the degree of influence is a mile-stone in forensic medicine. Such table is published on: frigor.hit.bg/…/Medicina.Legalis-Determinig.Time.of.Death-Algor.Mortis-Osogovetz.pdf.
Aim: Studying the affect of body temperature of the donor over the technical execution of the explantational procedure in relation to better quality and decrease in the error rate and complications.
Material and methods: For a three-year-period (2006-2009) in the Tissue Bank Osteocentre – Varna were explanted 74 patients. The temperature was measured during the explantation with a contact mercury thermometer in the tissues on symmetrical localizations. The criterion "temperature" was evaluated as follows: I group – 28 cases, explantation was performed by the 12th hour on a "warm" tissue donor, who has not been placed in refrigeratory. The tissue temperature was over 28oC. II group – 46 cases – the explantation was performed 12 to 24 hours after decease on "cold" tissue donor, placed in refrigeratory. The body temperature was under 28oC. The temperature of the environment is kept between 19-23oC. Comparative analysis was made on the explanted tissues and the previously described errors. From each donor were explanted on average 18 objects.
Results: In the I group were described 6 lesions – 1.2%.
In the II group – 12 lesions of the tissues – 2.17%.
Conclusion: The criterion body temperature affects does not affect significantly the quality of work and error rate. Probably the last are mostly affected by other factors, such as the burnout syndrome and others, which will be subject to the next study.

Poster Walk 1
03.11.2010, 15.30 – 16.00 hrs

P10

Influence of an electron beam sterilization procedure on the early remodelling of allogeneic-free tendon grafts as a substitute for the front cruciate ligament

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Introduction: In an *in vitro* model recently carried out, we were able to prove that high dose (34kGy) electron beam (E-Beam) irradiation indicates a lesser influence on the mechanical integrity from bone-tendon-bone-transplants, in comparison to that of gamma irradiation with same dosage. Thus, it made sense to examine the influence of E-Beam on the early remodelling of allogeneic-free tendon grafts as a substitute for the front cruciate ligament in the sheep model.
Methods: 18 female merino mix sheep at the age of 2-3 years received an ACL replacement. As a graft, the tendon of the flexor digitorum superficialis muscle was used, which was either irradiated with a 34 kGy E-Beam at -70°C and under the protection of CO2 (n=9) or fresh frozen (n=9). Autologous grafts and native ACL served as controls. After 6 and 12 weeks, half of the animals was sacrificed, the knee joints were explanted in toto, and tendon bone complexes were tested biomechanically in regard to stiffness, elongation and maximum failure load.
Results: The biomechanical testing proved to have a significantly lower stiffness and failure load of the E-Beam grafts in comparison to the autologous grafts at both times (p = 0.048, 0.03). Compared with fresh frozen allografts the grafts E-Beam treated grafts indicated a significantly lower maximum failure load at both times (p = 0.037, 0.004), the stiffness also lay under the results of the fresh frozen allografts at 6 weeks and at the 12-week period, the difference was significant (p = 0.004). From 6 to 12 weeks stiffness and failure load of fresh frozen allografts and autografts increased whereas in ebeam treated grafts biomechanical properties decreased. In comparison with the native ACL, the mechanical qualities of the E-Beam-treated allografts were decreased at both times significantly (p = 0.001).
Discussion: The results of this study showed that the sterilization of allogeneic-free tendon grafts with 34 kGy electron beam irradiation leads to clearly decreased biomechanical qualities during the time of early band remodelling. Since over the course of the remodelling between the 6 and 12-week periods no improvement of these qualities was observed, it is suspected that the biological processes are disturbed during the early remodelling by the irradiation.

РОЛЯ НА ПОЗИТРОН-ЕМИСИОННАТА ТОМОГРАФИЯ ПРИ ПЪРВИЧНА ДИАГНОСТИКА И ПРОСЛЕДЯВАНЕ НА ГАСТРО-ИНТЕСТИНАЛНИ СТРОМАЛНИ ТУМОРИ

К. Иванов*, А. Клисарова, В. Игнатов*, Н. Колев*, А. Тонев*, Ж. Данчева**, А. Златаров***

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Университетска болница „Св. Марина" – Варна

Гастроинтестиналните стромални тумори са рядка група мезенхимни неоплазми, възникващи по цялата дължина на храносмилателната система - от хранопровода до ректума. На тях се падат 0,1 - 3,0% от всички тумори на гастроинтестиналния тракт (ГИТ). За първи път през 1983 г. Mazur и Clark въвеждат термина стромален тумор. Преди това те са били определяни като гладкомускулни тумори, саркоми или тумори с неясна хистогенеза (1).

Гастро-интестиналният стромален тумор е най-честият мезинхимален тумор в ГИТ. Помалко от 1% от първичните стомашни тумори и 5-7% от саркомите на ГИТ се падат на ГИСТ. Малки асимптоматични GIST по литературни данни се откриват при аутопсия в над 50% от индивидите над 50 год. (2) Всяка година между 5 000 и 10 000 нови случая се диагностицират в САЩ, като честотата мъже-жени е почти еднаква, с леко превалиране на мъжете. Най-засегнатата възрастова група е 60-70 години, много рядко такъв тумор се открива при пациенти под 20 години.

По-голямата част от GIST са спорадични. Съществуват и наследствени GIST, фамилни тумори (пациентите са с c-KIT рецептори, алфа полипептидни /PDGFRA/ мутации), описани като неврофиброматоза тип I (силно c-KIT позитивни) и триада на Carney (рядко c-KIT позитивни), възникваща предимно при млади жени (локализация на ГИСТ в стомаха, параганглиом и белодробен хондром). Само при 25% от пациентите с триадата тя се явява в напълно разгънат вид. (3)

Приблизително 60% от GIST възникнат в стомаха, 30% в тънките черва, 5% в ректума и 5% в хранопровода. GIST на дебелото черво и ректума са по-малко от 1% от всички колоректални новообразовения.

Рядко GIST може да се развие извън храносмилателния тракт (оментум, мезентериум, панкреас и ретроперитонеално пространство) - т.нар. екстрагастро- интестинални GIST. (4) Метастазите в лимфните възли са изключително редки. Метастази в белите дробове и в други извън корема места се наблюдават само в напреднали случаи.

ДИАГНОЗА

Макроскопски ГИСТ са сиворозови възли, разположени субмукозно или с разязвяване, както много често и с кистична дегенерация и/или некроза при по-големите формации.

Поставянето на диагноза ГИСТ изисква хистологично изследване и задължителна имунохистохимична верификация за уточняване на хистогенетичния произход. За ИХХ потвърждение се използват панел от маркери, включващи c-KIT, CD34, Vimentin, Desmin или LSMA, S100p, Synaptophysin.(5)

Ключът към диагнозата ГИСТ е позитивното мембранно и/или цитоплазмено оцветяване на туморните клетки със c-KIT антитялото, което се наблюдава в 94% от случаите. Друг маркер в подкрепа на диагнозата е CD34, който е позитивен в 70 - 80% от случаите, 30-40% от туморите са фокално позитивни за LSMA, по-малко от 5% са реактивни за Vimentin, Desmin и S100p. Позитивността за S100p, Synaptophysin, Vimentin, Desmin, LSMA

HOSPITALYSED WITH NEWLY DIAGNOSED ISCHAEMIC HEART DISEASE

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63.) ANALYSIS OF NON-VALVULAR ATRIAL FIBRILLATION ETIOLOGY

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64.) COMMENCEMENT OF ANTIBIOTIC TREATMENT IN PRETERM BIRTH.

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65.) UPON TYPE, FREQUENCY AND SOME CLINICAL ASPECTS OF PSYCHOTIC SYMPTOMS IN ALZHEIMER'S DISEASE

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Medical University - Varna, MHAT "St. Marina" - Varna, Bulgaria

66.) DYNAMIC OF PARANOID SYNDROMES IN SCHIZOPHRENIA IN DEPENDENCE ON DELUSIONS OF BEING CONTROLLED

St. Todorov, M. Arnaoudova*, K. Todorova
University Hospital "St. Marina" - Varna, Bulgaria

67.) OUTCOME AFTER RADICAL RECTAL CANCER SURGERY

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68.) NEW STRATEGIES IN LIVER SURGERY IN IV STAGE METASTATIC COLORECTAL CANCER

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72.) Erysipelas penis

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NEW STRATEGIES IN LIVER SURGERY FOR IV STAGE METASTATIC COLORECTAL CANCER

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ABSTRACT

With recent advances in chemotherapy, traditional clinicopathological factors should not be used to exclude otherwise resectable patients from surgery. Pathological or clinical response to chemotherapy has become valuable in determining the treatment for individual patients. Portal vein embolization and two-stage operation with ablative therapy and preoperative chemotherapy should be considered for unresectable liver metastases located in a liver remnant that is at the minimum volume required for survival. The recent E0RTC 40983 trials regarding preoperative chemotherapy for resectable CLM have failed to demonstrate a clear significant advantage. However, patients with a low clinical risk score for the recurrence, such as several metastases of less than 4 cm, and who are fit candidates for liver resection are often offered immediate surgery. Patients at high clinical risk should also be considered for neoadjuvant chemotherapy. One forthcoming and appealing strategy is to adapt postoperative treatment according to tumor response as evaluated by neoadjuvant chemotherapy or by the presence of individual tumor biomarker such as the Kras mutation or single-nucleotide polymorphisms. This could avoid the overtreatment of nonresponsive patients and enable a more tailored approach to treat an individual patient's disease. The treatment paradigm for CLM is rapidly changing with the development of newer anticancer chemotherapeutic agents.

Key words: colorectal cancer, liver metastases.

INTRODUCTION:

The second leading cause of cancer-related mortality worldwide is colorectal cancer. In the United States, more than 140,000 patients are diagnosed and 56,000 die of this disease on early basis.[1] At the time of diagnosis 85% of the patients are appropriate for resection at the time of diagnosis and the disease recurs in more than 50% of the patients in the first five years. Most frequently the metastases affect the liver (in 30% to 60% of cases), and the lung (in 20% to 30% of the cases). At presentation up to 25% of colorectal cancer patients have liver metastases, and a another 30% develop liver metastases usually until the second year after primary tumor resection.[2] Leaved without treatment the patients with colorectal liver metastases have median survival as 12 to 15 months and 5-year survival less than 5%. In spite of the introduction of a many new agents the median survival for patients with stage IV disease treated with the best chemotherapy remains only 25 months.[3, 4] Liver resection remains the best option for achieving long-term survival despite the new treatmen modalities. No consensus is available on if aggressive surgery is proper for CLM; there are some arguments the survival benefit after this procedure is due to better patient selection rather than of the treatment strategy. The tumor biology is probably prevailing no matter of the treatment applied. Therefore the only way to change the disease course for some patients is complete hepatic resection for CLM and integrated therapy with surgery and systemic chemotherapy is of increased importance. Patients with CLM previously considered as unresectable now have a chance for a curative resection because of the new development in multimodality treatment. Now the 5-year overall survival rate after surgery reaches 58%. [5–10]

EVALUATION OF LIVER SPREAD

A systematic and rigorous assessment of preoperative liver is the careful selection of patients for surgery. The detection of CLM has improved over the past decade, and various imaging techniques are now available for monitoring patients with colorectal cancer are available. In general, thin slice multiphase helical computed tomography (CT) is the preferred method of imaging for the detection of CLM, as it is the technique most widely used. It can be scan the chest, liver, abdomen and pelvis in the same exam, and through the various stages of analysis provides detailed anatomical associations of vascular tumors and in planning the resection liver. A similar alternative that is preferred by some centers is the magnetic resonance imaging (MRI) with a combination of gadolinium and contrast enhanced with superparamagnetic iron oxide.

Fluorodeoxyglucose positron emission tomography (FDG-PET) appears to be a useful for the detection of extrahepatic disease,[5] but is its ability to evaluate the liver itself is limited because the detection of intrahepatic lesions is poor, especially after chemotherapy.[11] A recent meta - analysis showed that FDG-PET has better sensitivity in detecting liver metastases of colorectal cancer (94.6%) than

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Journal of IMAB - Annual Proceeding (Scientific Papers) 2011, vol. 17, Abstr. 1

INTERSPHINCTER RESECTION IN THE ERA OF LAPAROSCOPY

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SUMMARY:

BACKGROUND: Laparoscopic surgery has been reported to be one of the approaches for total mesorectal excision (TME) in rectal cancer surgery. Intersphincteric resection (ISR) has been reported as a promising method for sphincter-preserving operation in selected patients with very low rectal cancer. METHODS: We try to underline the important surgical issues surrounding the management of patients with low rectal cancer indicated to laparoscopic intersphincteric resection (ISR). From January 2007 till now, 22 patients with very low rectal cancer underwent laparoscopic TME with ISR. We report and analyze the results from them RESULTS: Conversion to open surgery was necessary in one (2%) patient. The median operation time was 293 min and median estimated blood loss was 40 ml. The pelvic plexus was completely preserved in 32 patients. There was no mortality. Postoperative complications occurred in three (9%) patients. The median length of postoperative hospital stay was 11 days. Macroscopic complete mesorectal excision was achieved in all cases. Complete resection (R0) was achieved in 21 (91%) patients.

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COMPARATIVE STUDY OF THE EFFECTIVENESS OF DIFFERENT ANTIBACTERIAL AGENTS IN THE TREATMENT OF URETHRITIS WITH DIFFERENT ETIOLOGY

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SUMMARY:

For more than 25 years Tetracyclines were the first choice for treatment of Chlamydia, Mycoplasma and mixed urethritis. Some adverse reactions / hepatotoxicity, photosensitivity/, as well as the developing resistance , imposed the introduction of new medicines which improved the therapeutic opportunities. The recently introduced Macrolides took advantage of the Tetracyclines because of their higher effectiveness . The new quinolones Levofloxacin and Moxifloxacin gain a substantial therapeutic progress in the therapy of Chlamydia urethritis, as well as Gonococcal infection, which makes them the first choice against mixed Gonococcal and Chlamydia infection. 283 patients with urethritis were followed in our study. They were examined microscopically, with microbiological cultures, serologically and with PCR. Chlamydia trachomatis, Mycoplasma genitalium, S. aureus, S. epidermidis, Enterococcus, E. coli, N. gonorrhoeae, Proteus, Klebsiella, Pseudomonas, Gardnerella vag., Clostridium were isolated as etiological causes. We applied Doxycyclin, Azitromycin, Ciprofloxacin, Moxifloxacin under different therapeutic schemes for a period of 7 to 14 days depending on the severity of the disease. The analysis of our summarized data from the comparative study of the effectiveness of the applied therapeutic agents toward the most common causes is the following:

Chlamydia trachomatis – Doxycyclin 81%, Azitromycin 87%, Ciprofloxacin 67%, Moxifloxacin 87%.

Mycoplasma – Doxycyclin 40%, Azitromycin 75%, Ciprofloxacin 45%, Moxifloxacin 100%.

Bacteria - Doxycyclin 66%, Azitromycin 73%, Ciprofloxacin 80%, Moxifloxacin 88%.

Mixed - Doxycyclin 77%, Azitromycin 78%, Ciprofloxacin 50%, Moxifloxacin 100%.

These results reflect a regular tendency of the effectiveness and clinical and laboratory correlation of the medicines towards different etiological causes. The conventional application of some therapeutic schemes without the relevant precise diagnostics leads to chronification of the cases and failure of the outcome of the infection.

Key words:urethritis,chlamydia trachomatis, antibacterial agents

34 17.20 – 17.30
EXPRESSION OF GASTRIN AND GASTRIN RELEASING PEPTIDE (BOMBESIN) IN NEUROBLASTOMA TISSUES (6 min)
Bak Y.J., Wehner S., Gfroerer S. , Wachowiak R., Metzger R. , Quaas A., Koehl U., Erttmann R., Rolle U., Fiegel H.C. (Frankfurt and Leipzig, Germany)

35 17.30 – 17.40
PANCREATIC TUMOURS IN CHILDREN: DIAGNOSIS, TREATMENT AND PATHOLOGY (6 min)
Nasher O., Hall N.J., Sebire N.J., Pierro A. (London, UK)

36 17.40 – 17.50
ARE CONGENITAL LUNG MALFORMATIONS PREMALIGNANT LESIONS? (6 min)
Pederiva F., Pecile V., Meneghello P., Cleva L., De Leo L., Schleef J. (Trieste, Italy)

37 17.50 – 18.00
COMPARATIVE ANALYSIS OF OPEN ECHINOCOCCECTOMY VS. PAIR TECHNIQUE IN CHILDREN – 10 YEARS EXPERIENCE (6 min)
Kolev N., Ivanov G., Tonev A., Kokenski P., Ignatov V., Ivanov K. (Varna, Bulgaria)

38 18.00 – 18.10
EXPRESSION OF VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF) AND HYPOXIA INDUCED FACTOR (HIF) IN NEPHROBLASTOMA TISSUE (6 min)
Gliha A., Pajic A., Zganjer M., Zupancic B., Cizmic A., Bastic M., Bahtijarevic Z. (Zagreb, Croatia)

39 18.10 – 18.20
TREATMENT OF PROBLEMATIC HEMANGIOMAS WITH PROPRANOLOL AND 940NM DIODE LASER IN CHILDREN (6 min)
Dementieva N., Digtiar V., Hitric A., Gladkyi A., Avilov A., Romanenko A., Mamontova T. (Dnipropetrovsk, Ukraine)

40 18.20 – 18.30
COMPARATIVE STUDIES ON ESOPHAGEAL GLANDS IN ANIMAL MODELS FOR REGENERATIVE MEDICINE APPLICATIONS (6 min)
Klimbacher G., Biro E., Saxena A. (Graz, Austria)

УД.05.6 Чакалова Г.
Урологични усложнения след гинекологични и онкогинекологични операции

12 ноември (събота) 8.30 - 9.45 ч.

Зала Б

УД.06 Рак на дебелото и правото черво

Модератори: Проф. Иванов, Кр., Проф. Владов, Н.
Секретар: Д-р Георгиев, В.

УД.06.1 Ангелова Е., Димитров В., Куртев П., Янков В., Еников К.
Едноетапната анастомоза - предпочитан избор в хирургичното лечение на левостранния обтурационен дебелочревен илеус-карцином

УД.06.2. Колев, Н., Тонев А., Иванов Г., Златаров А., Тодоров Г., Иванов К., Игнатов В.
Едногодишен PFS след R0 хепатектомия при метастази от КРК

УД.06.3 Колев Н., Тонев А., Иванов Г., Златаров А., Тодоров Г., Иванов К., Игнатов В.
Първа терапевтична линия и хирургична стратегия при метастазирал КРК

УД.06.4 Колев Н., Тонев А., Иванов Г., Златаров А., Тодоров Г., Иванов К., Игнатов В.
Клиничичн и морфологични ефекти на неоадювантната ХТ при метастазирал КРК

12 ноември (събота) 09.45 – 11.00 ч.

Зала Б

УД.07 Рак на простатната жлеза и урогениталния тракт

Модератори: Доц.Нейков, Кр., Доц.Генадиев, Цв.
Секретар: Д-р Табаков, В.

УД.07.1 Цингилев Б., Табаков В., Нейков Кр.
Ролята на простатната биопсия в диагностиката на простатния карцином

УД.07.2 Nakov A., Hristoskova R., Fakirova A., Katrov E.,Drandarska Iv., Mihova A., Saltirov, I.
Testis tumors – diversity of morphology, immunophenotype and biological behavior

DAY 2 – 13 MAY 2011

08:30 – 12:00 h – Live demonstrations

Chairman: D. Takov, A. Julianov, K. Vasilev
Secretary: D. Sotirov

12:00 – 13:00 h – Lunch
13:00 – 15:00 h – Oral presentations (20 min)

Chairman: N. Lygidakis, R. Gaydarski, N. Vladov
Secretary: St. Handjiev

1. Surgical anatomy of the liver and methods for vascular control. – *N. Lygidakis*
2. Colorectal liver metastases treatment – East Bulgaria surgeons' view – *N. Kolev*
3. Combination of RFA with resection for CRC liver metastases. – *A. Julianov*
4. Changes of anesthesia protocols aiming to reduce blood loss during major liver resections. – *E. Odisseeva*
5. Complications after liver surgery. – *I. Popescu*
6. Percutaneous RFA of CRC liver metastases. Indications and long-term results. – *N. Grigorov*
7. Symposium Infomed – *K. Vasilev*

15:40 – 16:00 h – Coffee break
16:00 – 18:00 h – Oral presentations (20 min)

Chairman: I. Popescu, A. Julianov, G. Kurteva
Secretary: A. Katzarov

1. Complications following percutaneous RFA of liver metastastases. Diagnosis and treatment options. – *K. Katzarov*
2. Surgery for breast cancer liver metastases. – *D. Sotirov*
3. Non-CRC gastrointestinal liver metastases. – *K. Draganov*
4. Liver metastases from GIST. – *D. Kostov*
5. Surgical approach in cases with metastatic melanoma. – *I. Popescu*
6. Adjuvant regimen for non-CRC liver metastases. – *G. Kurteva*
7. Symposium Lybra – *D. Takov*

19:30 h – Official Dinner – National Palace of Culture (Hall 10)

Съвремени критерии за резектабилност при чренодробни метастази от колоректален рак.

К. Иванов, Н. Колев, А. Тонев, В. Игнатов, А. Златаров
УМБАЛ „Св. Марина", Варна

Описваме стандарти за диагноза и лечение на колоректални чернодробни метастази. Излагаме алгоритми за поведение при пациенти със синхронни/метахронни колоректални метастази или локорегионалеи рецидив. Хирургичната резекция е метод на избор при радикалното лечение на чернодробни метастази. Факторите, които са определящи за резекция на чернодробни метастази са следните: 1. общо състояние на пациента и коморбидности; 2. възможност за постигане на R0 резекция: а) при необходимост в комбинация с аблативни методи; б) при необходимост неоадювантна терапия: в) възможност за лечение на екстрахепаталните метастази; 3. задоволнтелен обем остатъчен черен дроб: а) при необходимост предприемане на емболизация на портални вени или двуетапна хепатектомия; 4. възможността за запазване на два съседни чернодробни сегмента с адекватно кръвоснабдяване и билиарен дренаж; 5. биологични аспекти на тумора; 6. опита на хирурга и на центъра. Екстрахепаталните метастази не са контраиндикация за хепатектомия при чернодробни метастази от колоректалеи рак. Има описана чернодробна резекция при билобарни колоректални метастази и при пет или повече метастази в черния дроб. Видът на резекцията (клиновидна резекция или анатомична резекция) не повлиява честотата на рецидивите.

Aggressive surgical approach to liver metastases – is it considered to be the appropiate one.

K. Draganov, V. Marinov, B. Borisov, A. Petreska, Y. Kolev, S. Tonev, R. Gaydarski
First Surgical Clinic, Tokuda Hospital Sofia

Malignant liver tumors (MLT) are mainly secondary, metastatic and less often primary. In patients with colorectal and NET-metastases a surgical removal of a solitary

DAY 3 – 14 MAY 2011

09:30 – 12:00 h – Free papers (10 min)

Chairman: A. Jonkov, K. Draganov, V. Mutafchiyski
Secretary: V. Penov

1. Preoperatively false positive diagnosed as liver tumors intraparenchymal and extrahepatic lesions – analysis of a series of 140 liver resections – *Julianov A, A. Karashmalakov*
2. Contemporary criteria for resectability of CRC liver metastases. – *Ivanov K, N. Kolev, A. Tonev, V. Ignatov, A. Zlatarov*
3. Aggressive surgical approach to liver metastases – is it considered to be the appropiate one. – *K. Draganov, V. Marinov, B. Borisov, A. Petreska, Y.Kolev, S. Tonev, R. Gaydarski*
4. Surgical treatment of CRC liver metastases – the impact of age on postoperative results. *Belev N, P. Rusev, M. Slavchev, A. Trifonov*
5. Synchronous resections of primary and liver metastases. – *Vasilevski I, I. Takorov, S. Sergeev, N. Vladov*
6. The role of neoadjuvant chemotherapy in patients with metastatic CRC. – *Ivanov K, N. Kolev, V. Ignatov, A. Tonev, G. Ivanov*
7. Resection of CRC liver metastases – clinical cases. – *N. Kolev, K. Ivanov, A. Tonev, V. Ignatov, A. Zlatarov*
8. Anatomical resection of Sg6 – *D. Kostov*
9. Ex situ in vivo resection of solitary CRC liver metastasis paced between right hepatic vein and IVC. – *Michaylov V, I. Takorov, V. Mutafchiyski, S. Sergeev, V. Penov, N. Vladov*
10. Two stage liver resection in a 76 years old woman with bilobar metachronous liver metastases *Belev N, P. Rusev, M. Slavchev, A. Trifonov*
11. Liver resection and abdominal wall reconstruction for colorectal cancer metastases – *D.Kostov*
12. First line chemotherapy in cases with metastatic CRC. – *Kolev N, K. Ivanov, V. Ignatov, A. Tonev, G. Ivanov*
13. Modified transumbilical laparoscopic cholecystectomy. – *Karashmalakov A, A. Julianov, I. Georgiev*

Роля на неоадювантната химиотерапия при метастатичен колоректален рак.

Иванов, Н. Колев, В. Игнатов, А. Тонев, Г. Иванов
УМБАЛ „Св. Марина“, Варна

Постигнатият консенсус за възприемането на чернодробната резекция като оперативна стратегия в ерата на неоадювантната терапия при лечението на метастази от колоректален рак доведе до значително увеличаване на индикациите за радикална чернодробна резекция. Остават съмнения относно ролята на този метод поради наличието на рандомизирани проучвания, които сочат, че премахването на макроскопските метастази не предотвратява развитието на in-situ рецидиви. Ползата от директното прилагане на неоадювантна химиотерапия се състои в това, че намалява броя на микрометастазите и по този начин се достигат по-добри резултати след радикална хепатектомия. Допълнително може да се постигне съхраняване на чернодробния паренхим благодарение на възможността за оценка на терапевтичния отговор, откриване на пациентите с лоша прогноза поради прогресия на заболяването въпреки химиотерапията, както и директно намаляване на големината на метастази вследствие действието на химиотерапевтиците. Недостатъците на на неоадювантната химиотерапия включват чернодробна токсичност, възможност за прогресия на заболяването по време на химиотерапевтичния курс на лечение (което от своя страна предполага съществуването на тесен прозорец за реализиране на радикална хепатална резекция) и невъзможност за постигане на пълен хистологичен отговор. При тези случаи неоадювантната химиотерапия не увеличава честотата на нерезектабилни метастази поради запазване на възможността за извършване на анатомични сегментектомии, вместо потенциално „курабилни" хепатектомии.

Резекция на метастази от колоректален рак - случаи от практиката

Н. Колев, К. Иванов, А. Тонев, В. Игнатов, А. Златаров
УМБАЛ „Св. Марина", Варна

Представят се случаи от практиката на болни оперирани в първа клиника по хирургия на УМБАЛ „Св. Марина" R0 резекция при чернодробни меастази от колоректален рак. Ресекзия на първи сегмент. Повторни чернодробни резекции. Мезохепатектомия. Двуетеапна хепатектомия.

Anatomical resection of Sg6.

D. Kostov
Department of Surgery, Naval Hospital of Varna

Anatomical monosegmentectomy with extra hepatic disruption of the afferent and efferent blood flow is technically possible only for Sg 1

We introduce the operative and technical aspects of the anatomical resection of Sg 6 with extra hepatic disruption of the afferent and efferent blood flow.

The groove of Ganz is encountered in 65% of population. Through this groove passes the portal triad of Sg 6 and that fact gives the opportunity for extra hepatic disruption of its afferent blood flow. There is presence of supplementary right lower hepatic vein in 31% of population that drains the blood of Sg 6 in vena cava inferior. In such cases it is technically possible to disrupt this vein with extra hepatic approach.

Anatomical resection of Sg 6 is technically possible when Ganz groove and supplementary right lower hepatic vein are available.

ELECTRONIC POSTERS

33 **Accessory scrotum - Rare Findings in Paediatric Urology - Three Cases in Three Years**
Musa Ibrahim
Murtala Muhammad Specialist Hospital, Surgery, Kano, Nigeria

34 **An Unusual Case of Severe Lower Gastrointestinal Bleeding in Infant**
George Ivanov[1]; Nikola Kolev[1]; Valentin Ignatov[1]; Anton Tonev[1]; Plamen Kokenski[1]; Valeria Kaleva[2]; Krasimir Ivanov[1]
[1]University Hospital, Department of General and Operative Surgery, Varna, Bulgaria; [2]University Hospital, Department of Pediatric Oncochematology, Varna, Bulgaria

35 **The Rising Incidence of MRSA in Pediatric Soft Tissue Infections in Our Community**
Azur Jakić; Kenan Karavdić; Zlatan Zvizdić
KCUS, Clinic of Pediatric Surgery, KB Zenica, Sarajevo, Bosnia & Herzegovina

36 **Transsphincteric Anorectoplasty (TSARP) for Vestibular & Perineal Fistula**
Jamal Sadeeq Kamal; Osama Rayes; Mazen Kurdi
King Abdul Aziz University Hospital, Surgery, Jeddah, Saudi Arabia

37 **Comparative Analysis of Open Echinococcectomy vs. PAIR Technique in Children - 10 Years Experience**
Nikola Kolev[1]; George Ivanov[1]; Anton Tonev[1]; Plamen Kokenski[2]; Valentin Ignatov[2]; Krasimir Ivanov[1]
[1]University Hospital, Department of General and Operative Surgery, Varna, Bulgaria; [2]University hospital "St. Marina", Department of general and operative surgery, Varna, Bulgaria

38 **Waugh's Syndrome: Case Report**
Elvira Konjic; Zarko Mladina; Nesad Hotic; Edin Husaric; Amir Halilbasic; Emir Rahmanovic; Sanimir Suljendic
University Clinical Center Tuzla, Pediatric surgery, Tuzla, Bosnia & Herzegovina

39 **Management of Retractile Testes**
Elvira Konjic; Zarko Mladina; Nesad Hotic; Edin Husaric; Amir Halilbasic; Sanimir Suljendic; Emir Rahmanovic
University Clinical Center Tuzla, Pediatric Surgery, Tuzla, Bosnia & Herzegovina

40 **Trigonocephaly in Dizygotic Twins - a Case Report**
Dzelil Korkut; Mirza Moranjkic; Mirsad Hodzic; Zlatko Ercegovic
University clinical center Tuzla, Neurosurgery, Tuzla, Bosnia & Herzegovina

41 **Urethral Trauma in Pediatric Patients**
Zoran Bahtijarević[1]; Rok Kralj[2]; Irenej Cigit[2]; Mislav Bastić[2]; Pajić Anto[2]; Fran Tampalija[2]; Gliha Andro[2]; Mesić Marko[2]
[1]Children's Hospital Zagreb, KBC, Pediatric surgery department, Zagreb, Croatia; [2]Children's Hospital Zagreb, KBC "Sestre Milosrdnice", Pediatric surgery department, Zagreb, Croatia

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O-36

FUNCTIONAL DYSFUNCTION AFTER RADICAL SURGERY FOR RECTAL CANCER - INTRAOPERATIVE ELECTROPHYSIOLOGICAL CONFIRMATION OF NERVE PRESERVATION

Tonev A., N. Kolev, K. Ivanov, V. Ignatov, G. Ivanov, A. Zlatarov

Functional dysfunctions after radical rectal surgery are developed by a wide range of causes. There is, however, general consensus that intraoperative injury to autonomic nerves represents the principal cause of postoperative incontinent dysfunction of pelvic viscera. From July 2010 to October 2011, four patients underwent partial (PME) and 58 patients total mesorectal excision (TME) with monitoring of nerve preservation using intraoperative electrical stimulation of pelvic autonomic nerves. Forty-six patients with INS-confirmed preservation of parasympathetic nerves remained unchanged in early pelvic organ function. In 16 patients without confirmation of PANP (unilaterally or bilaterally) on INS, voiding function was significantly more impaired postoperatively and at longterm follow-up. Voiding function was improved in 4 of 10 patients with unilateral confirmed damage. In 5 of 6 patients with bilateral intra-operative damage dysfunction syndrome persists in the early postoperative period. Online signal processing by intraoperative electrical stimulation of the pelvic organs after radical rectal surgery for rectal carcinoma aids reliable identification of pelvic autonomic nerves with potential for improvement of sphincter sparing surgery.

O-37

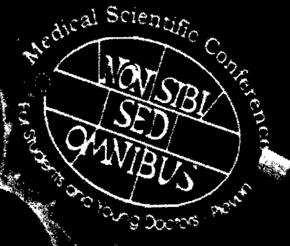
PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOURS AMONG OBESE PREPUBERTAL CHILDREN

Galcheva S, V. Iotova, E. Dyankov, Y. Yotov[1]

Dept. of Pediatrics, Varna Medical University, Varna, Bulgaria, [1]Dept. of Internal medicine, Varna Medical University, Varna, Bulgaria

Objective: To investigate the relationships of physical activity (PA) and sedentary behaviours (television (TV) viewing and computer use) with the presence of abdominal obesity in healthy prepubertal children. **Material and methods**: A case-control study of 168 healthy children (78 males; mean age 8.1 ±1.2 years) was conducted. Body weight, height and waist circumference (WC) were measured; BMI was calculated. Children were divided into three groups according to the WC percentiles for Bulgarian children as a measure of central obesity ("normal-WC", 31.5%; "children-at-risk", 27.4% and "abdominally obese", 41.1%). A structured parental interview was used to obtain data about children's physical and sedentary behaviours. **Results**: No significant difference was found in the frequency and duration of PA among the WC categories ($p > 0.05$). More than 58% of the parents reported the presence of a seasonal difference in children's activity with higher mean PA levels during the spring/summer months. This seasonal behaviour was significantly more frequent among the abdominally obese children compared to the normal-WC group (68.1% vs. 47.1%, $p = 0.04$). Children spent an average of 2.7 ±1.2 h/d watching TV and 0.9 ±1.0 h/d in using computers. Although insignificantly, the abdominally obese children spent more hours a day in front of the TV sets and computers compared to their normal-WC counterparts (2.8 ±1.3 vs. 2.6 ±1.0 and 0.9 ±1.0 vs. 0.6 ±0.9 h., respectively, $p > 0.05$). Boys from all WC-groups used computers more often than girls (1.1 ±1.0 vs. 0.7 ±0.9 h/d, $p = 0.05$). **Conclusion**: Physical inactivity may be associated with the excess accumulation of abdominal fat mass in prepubertal children, which warrants further investigations.

Deadline for abstract submission:
25th August 2011



LOOK BEYOND THE VISIBLE

9TH INTERNATIONAL MEDICAL SCIENTIFIC CONFERENCE FOR STUDENTS & YOUNG DOCTORS

ABSTRACT BOOK

LAPAROSCOPIC RECTAL RESECTIONS: A SINGLE-INSTITUTION EXPERIENCE

Tonev A. Y., Kalcheva J. T.*, Kolev N. Y.*, Ivanov G. H.*, Zlatarov A. K*, Todorov G. N.*, Ignatov V. L.*, Ivanov K. D*.*
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Correspondence: julia.kalcheva@gmail.com

INTRODUCTION

Evidence from randomised controlled trials has shown that laparoscopic colon and rectal cancer resection not only confers short - term benefits but also does not differ considerably in terms of its long-term oncological outcomes, as compared with open surgery.

METHODS

All laparoscopic started resections of the rectum performed between January 2008 and December 2010 in First Clinic of Surgery, University Hospital St. Marina are included in our study.

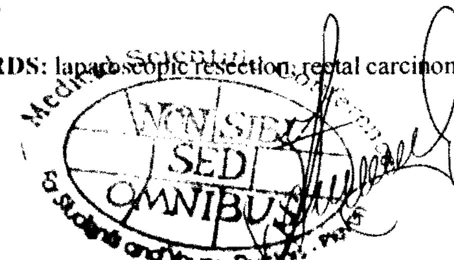
RESULTS

28 patients (9 male), median age 65 years (range 24 to 88), underwent laparoscopic resection of the rectum. The median Body Mass Index (BMI) was 22.5 (range 13.5 to 39.3). The majority of the procedures were performed for malignant disease (86.3%) and the most common procedure was anterior resection with TME (79.4%). The median duration of surgery was 135 minutes (range 65 to 330), with conversions to open surgery in 3 patients (12.5 percent). Complications occurred in 5 patients (18%), including anastomotic leaks in 1 (4 percent). The median length of hospital stay was five days (range 3 to 90) and the median follow-up was 19 months (range 1 to 46).

CONCLUSION

To establish the equivalency of the laparoscopic approach, all laparoscopic rectal resections should be completed in an environment wherein outcomes can be meaningfully evaluated and the clinical relevance of laparoscopic resection can be determined.

KEY WORDS: laparoscopic resection, rectal carcinoma



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THE VALUE OF ENDO RECTAL ULTRASOUND

N. Kolev, G. Todorov, V. Ignatov, A. Zlatarov, G. Ivanov, A. Tonev, K. Ivanov

I-st Clinic of Surgery, University Hospital "St. Marina"

ABSTRACT

In the last twenty years, endorectalultrasound (ERUS) has become the primary method for locoregional staging of rectal cancer. ERUS is the most accurate modality for assessing local depth of invasion of rectal carcinoma into the rectal wall layers (T stage). Lower accuracy for T2 tumors is commonly reported, which could lead to sonographic overstaging of T3 tumors following preoperative therapy. Unfortunately, ERUS is not as good for predicting nodal metastases as it is for tumor depth, which could be related to the unclear definition of nodal metastases. The use of multiple criteria might improve accuracy. Failure to evaluate nodal status could lead to inadequate surgical resection. ERUS can accurately distinguish early cancers from advanced ones, with a high detection rate of residual carcinoma in the rectal wall. ERUS is also useful for detection of local recurrence at the anastomosis site, which might require fine-needle aspiration of the tissue. Overstaging is more frequent than understaging, mostly due to inflammatory changes. Limitations of ERUS are operator and experience dependency, limited tolerance of patients, and limited range of depth of the transducer. The ERUS technique requires a learning curve for orientation and identification of images and planes. With sufficient time and effort, quality and accuracy of the ERUS procedure could be improved.

RECTAL EUS

Intraluminal rectal ultrasound examination of rectal lesions can be done with a rigid probe or a flexible echoendoscope. For the purpose of this discussion, both techniques are considered
EUS. EUS has been used to stage rectal cancer since the early 1980s. A recent publication evaluating all EUS studies from 1986 to 2003 in which more than 50 patients were enrolled showed an overall accuracy of 81.8% .2 Although most of the studies had accuracies of 85% to 95%, the composite number was influenced by two large studies, each of which contained more than 400 patients; in these studies, accuracy was lower (i.e., 63.3% and 69%; refs. 3, 4). As with MRI, most inaccuracy results from overstaging of T2 lesions, as EUS cannot reliably distinguish an irregular outer rectal wall image as being due to peritumoral inflammation or transmural tumor extension. Stenotic lesions may present difficulty, as the probe may not be able to traverse the lesion, leading to suboptimal staging. This problem is greater with rigid probes. Catheter probe EUS, which can be done with a standard endoscope, may aid in obtaining accurate tumor staging in the setting of a malignant stenosis. A well-known clinical caveat is that obstructing tumors usually represent at least T3 disease. EUS nodal staging accuracy is less than that of tumor staging and ranges from 70% to 75% .1, 5, 6 Flexible probes have the ability to evaluate the iliac region for adenopathy, which is clinically important because these nodes are retained in standard TMEresection. In one study,up to 28% of lymph node–positive distal tumors showed iliac adenopathy, with 6% of patients having only iliac adenopathy.7 Thus, failure to evaluate this region could lead to inadequate surgical margins in up to 6% of patients with low rectal lesions. Morphologic characteristics suggestive of malignant involvement include hypoechoic appearance, round shape, peritumoral location, and size >5 mm.8 An early study showed that lymph nodes >5 mm in size have a 50% to 70% chance of being malignant compared with only 20% of nodes <4 mm.9 EUS-guided fine-needle aspiration (FNA) allows confirmation of malignancy in suspicious nodes during the same examination, as long as the primary tumor does not lie in the path of the needle. Although initial studies differed on the role of EUS-guided FNA, a recent study of 457 patients showed the value of FNA, particularly in identifying distant malignant adenopathy.10 Seven percent of patients (32 of 457) had iliac adenopathy, with 47% of the nodes (15 of 32) having confirmed malignancy by FNA. Of note, only 47% of patients (7 of 15) with malignant adenopathy had adenopathy on CT. Three-dimensional EUS consists of the traditional transverse scan as well as coronal and sagittal scans that allow for a multiplanar display. This procedure has been found to be superior to CT and two-dimensional EUS in accurately determining tumor margins. The three-dimensional reconstruction is also thought to improve visualization of subtle protrusions of tumors infiltrating into adjacent tissues and organs, allowing for improved T and N staging. An initial study of 25 patients undergoing three-dimensional EUS, twodimensional EUS, and endorectal MRI showed no significant difference in T- or N-stage accuracy, but it was thought that endorectal MRI and three-dimensional EUS

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STAGING IN RECTAL CANCER – WHAT ARE THE OPTIONS?

V. Ignatov, A. Tonev, N. Kolev, G. Ivanov, A. Zlatarov, G. Todorov, K. Ivanov

I-st Clinic of Surgery, University Hospital "St. Marina"

ABSTRACT

There is an evolution in the diagnostic algorithm of rectal cancer. In this condition preoperative investigations assist in deciding the optimal treatment. The relation of the tumor edge to the circumferential margin (CRM) is an important factor in deciding the need for neoadjuvant treatment and determines the prognosis. Those with threatened or involved margins are offered long course chemoradiation to enable R0 surgical resection. Endoanal ultrasound (EUS) is useful for tumor (T) staging; hence EUS is a useful imaging modality for early rectal cancer. Magnetic resonance imaging (MRI) is useful for assessing the mesorectum and the mesorectal fascia which has useful prognostic significance and for early identification of local recurrence. Computerized tomography (CT) of the chest, abdomen and pelvis is used to rule out distant metastasis. Identification of the malignant nodes using EUS, CT and MRI is based on the size, morphology and internal characteristics but has drawbacks. Most of the common imaging techniques are suboptimal for imaging following chemoradiation as they struggle to differentiate fibrotic changes and tumor. In this situation, EUS and MRI may provide complementary information to decide further treatment. Functional imaging using positron emission tomography (PET) is useful, particularly PET/CT fusion scans to identify areas of the functionally hot spots. In the current state, imaging has enabled the multidisciplinary team of surgeons, oncologists, radiologists and pathologists to decide on the patient centered management of rectal cancer. Functional imaging may play an active role in identifying patients with lymph node metastasis and those with residual and recurrent disease following neoadjuvant chemoradiotherapy in near future.

INTRODUCTION

The number of patients, diagnosed with colorectal cancers (CRC) annually is still in increasing [1] . The incidence of CRC is highest in the western world where it is the second commonest cause of cancer death and fourth commonest cause of death from cancer worldwide [2]. In the western world there is a life time risk of CRC of 5%. Overall the 5 year survival has improved in the UK (55% in males and 51% in females) but to a lesser extent than in the USA and Europe [3]. Around 30%-40% of colorectal cancer is defined to arise from the rectum which is defined as the distal margin of tumor within 15 cm of the anal verge [4,5]. Colonoscopy and biopsy is considered as the gold standard investigation to confirm the diagnosis of rectal cancer and to exclude synchronous lesions. Patients are then staged to assess the extent of local disease and to identify the distant spread. Traditional rectal cancer surgery is associated with high rates of local recurrence of 5%-20%[6] . The combination of high quality surgery using total mesorectal excision [7] along with use of neoadjuvant and adjuvant treatment lead to a significant reduction in local recurrence and improved survival [8]. The surgeon aims to achieve a microscopic tumor free (R0) resection. Despite this, there is a risk of local failure. Careful preoperative assessment of the pelvis identifies high risk patients in whom the resection margins are either involved or within 1 mm of the mesorectal fascia. Involvement or threatened CRM (tumors within 1 mm of the mesorectal fascia) have a reduced chance of obtaining complete clearance. Thus, the status of the CRM has become more important than the TNM staging. In Europe and the UK, patients with involved CRM/threatened CRM are considered for long course chemoradiation prior to surgery.

PREOPERATIVE STAGING

Accurate pre-operative staging of rectal cancer is crucial in planning the surgical treatment and is the strongest predictor for recurrence [9]. The staging helps us to formulate a structured multidisciplinary management care plan and assess the prognosis. It is also used to compare the results of hospitals offering rectal cancer treatment and to define the role of different treatment modalities. Preoperative staging of rectal cancer can be divided into either local or distant staging. Local staging incorporates the assessment of mural wall invasion, circumferential resection margin involvement, and the nodal status for metastasis. Distant staging assesses for evidence of metastatic disease. Rectal cancer is palpable in 40%-80% of cases [10] . Digital rectal examination helps in documentation of the size, location, distance from the anal verge, and fixity. Lesions felt by digital rectal examination can be visualized using a rigid proctoscope.

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RESECTABILITY OF INITIALLY UNRESECTABLE LIVER METASTASES FROM COLORECTAL CANCER SHOULD NOT BE THE PRIMARY END POINT OF CLINICAL TRIALS

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Systemic chemotherapy of advanced colorectal cancer (CRC) adds around 9% 5-year survival rate with modern chemotherapy. [1] Such an outcome is substantially better when surgical resection of liver metastases is performed on very well selected patients. The shrinkage of tumor with proper medical treatment has improved over time, more and more resections of liver metastases that were initially considered unresectable are being performed by specialized surgeons.

The paradigm "better responses -> more resections -> better efficacy"[2] is encouraging, to the point that resectability is considered a potential primary end point of clinical trials. We could see why such an end point is so attractive to patients and physicians, but at the same time so misleading and biased that it should not be used as the primary end point in clinical trials. What drives our therapeutic choices in clinical practice is not the median effect, or the hazard ratio for survival, or the progression-free survival (PFS) advantage with a certain treatment over another, rather it is an individual patient could be "an outlier," ie, he or she might derive a significant benefit from therapy. In this regard, the ability of newer combinations to enable surgical resection of metastatic lesions that were not initially resectable is very attractive.[3] Following radical surgery, even those patients with initially unresectable disease will have a 30% chance of long-term survival,[4] which is similar to that of patients who undergo primary resection.[5]

Offering patients with metastatic colorectal cancer a chance of cure represents the main driving force of our clinical practice. However, given the high probability that disease will recur within a few months of major liver surgery, is resectability by itself a relevant enough outcome to pursue?

"Resectability" indicates a state of *potential resection*, it does not imply that the patient has had the tumor completely removed, is alive, well, and free of disease. Thus, it is important to recognize that resectability is just the first stage of a sequential process consisting of the following successive steps:

Table 1 illustrates the lack of compelling data available from clinical trials on this issue; the reported outcomes, in fact, refer only to patients who successfully underwent resection with curative intent, not to all patients considered eligible for radical surgery after "conversion chemotherapy."

Table 1. Resection after preoperative chemotherapy in recent colorectal cancer trials. The percentage of resection is much lower in phase III trials because patients were not selected for liver-limited disease.

Author, year	Regimen	Pts. with initially unresectable disease	Median duration of preoperative CT	% Pts. with secondary surgery	% Pts. with R0 resection	Median RFS after R0 surgery
Alberts SR, *J Clin Oncol* 2005	FOLFOX	42 (liver-limited disease)	6 months	40%	33%	19 months
Masi G, ASCO 2008	FOLFOXIRI	196	6 months	36%	15%	NR
Quenet F, ASCO 2004	FOLFOXIRI	34 (liver-limited disease)	3 months	88%	37%	12 months
De La Camara J, ASCO 2004	FOLFOXIRI	22	NR	50%	40%	NR
Tabernero J, *J Clin Oncol* 2007	FOLFOX + cetuximab	43	7 months	23%	21%	NR
Folprecht G, *Ann Oncol* 2006	AIO/irinotecan + cetuximab	21	6 months	23%	18%	NR
Folprecht G, GI Cancers Symposium 2008	FOLFOX or FOLFIRI + cetuximab	111 (liver-limited disease)	4 months	42%	35% FOLFOX-cet 37%, FOLFIRI-cet 34%	NR
Van Cutsem E, ASCO 2008	FOLFIRI + cetuximab	599	Not defined	5%	4.3% (9.8% in the liver-limited population)	NR
Bokemeyer C, *J Clin Oncol* 2008	FOLFOX + cetuximab	170	6 months	NR	4.7%	NR
Delaunoit T, *Ann Oncol* 2005	IFL or FOLFOX or IROX	795	5.5 months	3.3%	3%	18 months

Abbreviations: FOLFOX = folinic acid/5-fluorouracil (5-FU)/oxaliplatin; FOLFOXIRI = folinic acid/5-FU/oxaliplatin/irinotecan; AIO = irinotecan/5-FU/folinic acid; FOLFIRI = folinic acid/5-FU/irinotecan; IFL = irinotecan/5-FU/leucovorin; IROX = irinotecan/oxaliplatin.

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VALUE THE FDG-PET/CT ON THE MANAGEMENT OF COLORECTAL CANCER PATIENTS

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ABSTRACT

INTRODUCTION: In patients with colorectal cancer (CRC), preoperative evaluation and staging should focus on techniques that might alter the preoperative or intraoperative surgical plan. Conventional imaging methods (CT, MRI) have low accuracy for identifying the depth of tumour infiltration and have limited ability to detect regional lymph node involvement. The aim of this study was to evaluate the utility of FDG-PET in the initial staging of patients with CC in comparison with conventional staging methods and to determine its impact on therapeutic management. METHODS: In First Clinic of Surgery at University Hospital "St. Marina" one hundred and four patients with a diagnosis of CRC (53 males and 51 females; mean age 66.76± 12.36 years), selected prospectively. All patients were studied for staging using a standard procedure (CT) and FDG-PET. The reference method was histology. The effect of FDG-PET on diagnoses and the operative treatment was studied. RESULTS: In 14 patients, surgery was contraindicated by FDG-PET owing to the extent of disease (only 6/14 suspected by CT). FDG-PET revealed four synchronous tumours. For N staging, both procedures showed a relatively high specificity but a low diagnostic accuracy (PET 56%, CT 60%) and sensitivity (PET 21%, CT 25%). For M assessment, diagnostic accuracy was 92% for FDGPET and 87% for CT. FDG-PET results led to modification of the therapy approach in 17.85% of the patients with rectal cancer and in 14.8% of the patients with colon cancer. CONCLUSION: Compared with conventional techniques, FDGPET appears to be useful in pre-surgical staging of CC, revealing unsuspected disease and impacting on the treatment approach.

Key words: 18F-FDG . Position emission tomography. Colorectal cancer . Staging .

INTRODUCTION

Colorectal cancer is the third most frequently diagnosed malignant tumour and the third most frequent cause of cancer death in Western countries. In Spain, it is the second cause of cancer death in both males (after lung cancer) and females (after breast cancer) and represents 11% of all cancer deaths [1]. The diagnosis of colorectal carcinoma is based on colonoscopy and biopsy. Surgery is the main therapeutic modality for patients with colorectal carcinoma, even in those with metastasis for whom palliative techniques may be beneficial [2]. After initial diagnosis, accurate staging is the next important step in cancer management. Preoperative evaluation and staging should focus on techniques that might preclude surgery entirely, alter the preoperative or intraoperative surgical plan, or indicate the need for preoperative adjuvant therapy [3]. Depth of penetration through the bowel wall, involvement of lymph nodes, and presence of distant organ metastases are prognostic factors in patients with colorectal cancer [2]. Morphological procedures, i.e. computed tomography (CT) and magnetic resonance imaging (MRI), have shown low (although increasing) accuracy for identifying the depth of tumour infiltration within the bowel wall in colon carcinoma and are of limited value in the detection of regional lymph node involvement [2]. Normal-sized lymph nodes may contain tumour, whereas enlarged nodes may merely be reactive. Therefore, for the vast majority of patients with colorectal cancer, a CT or MRI examination is not required for N staging, which is determined according to surgical and pathological criteria. Nevertheless, most patients undergo a preoperative CT examination of the chest, abdomen and pelvis for detection of metastatic disease [2]. In addition to providing important prognostic information, the identification of distant metastases has been shown to benefit both the initial staging and the follow-up of patients with colorectal cancer [4]. Accurate staging that identifies unsuspected metastatic disease assists in optimising patient management by ruling out surgery in some cases and ensuring an adequate surgical approach in others. The benefits of surgical resection and systemic chemotherapy in prolonging the survival of patients with hepatic metastases have been established in recent years. Outcomes of surgery in patients with resectable liver disease show 5-year survival rates of 40%, compared with no survival at 5 years in untreated patients [5, 6]. Current strategies aim to increase the number of candidates for curative hepatic resection. These strategies include the use of preoperative systemic chemotherapy and ablative therapy, which can lead to surgery with curative intent for patients initially thought to

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INTRAOPERATIVE ULTRASOUND OF THE LIVER

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RESUME: Intraoperative ultrasound has become an essential tool for the surgeon in the field of hepatobiliary surgery. No preoperative study has been able to duplicate the sensitivity and specificity of intraoperative ultrasound (IOUS) in the identification of occult lesions. With recent improvements in technology, IOUS has now become an indispensable means of defining the extent of disease and respectability, and providing a guide to anatomic and nonanatomic hepatic resections and minimally invasive and percutaneous ablative techniques. The contrast-enhanced intraoperative ultrasound (CE-IOUS) makes IOUS more accurate, thus enhancing the impact of this technique on operative decision-making for liver tumors. The concept of intraoperative ultrasound (IOUS) was first introduced in the mid-1960s and was used primarily in evaluating choledocholithiasis. More advanced applications were not pursued until the early 1980s, secondary to the limitations of ultrasound technology, which involved large bulky transducers and a relatively poor image quality [1]. Presently, IOUS is a mainstay in all oncologic hepatobiliary procedures. Despite all of these technical advances, preoperative detection of preoperative liver lesions remains 60% to 80%. As a reflection of these shortcomings, false negative rates with CT and MRI range from 40% to 70% Table 1 summarizes these findings, the significance of which are demonstrated by several groups citing that in 27% to 49% of cases the operative plan will be changed based on new IOUS findings. These conclusions hold true even in the modern era of advanced preoperative staging. As a result, IOUS has now become a standard part of almost allhepatobiliary cases.

An understanding of normal ultrasound anatomy is essential in performing IOUS because it enables the surgeon to plan segmental resection and define resectability. (Table 1) On rare occasions, the three veins enter the inferior vena cava as a single trunk; more often, the right hepatic vein enters the cava separately while the middle and left form a single trunk or enter separately. Other occasional variants include a separate right superior hepatic vein that drains the upper portion of the liver bound by the coronary ligament, or an accessory inferior right hepatic vein that drains into the cava 2 to 3 cm distal to the hepatic vein confluence. On occasion the portal vein may be ventral to the hepatic artery, duplicated, congenitally absent, or branch intrahepatically.

ULTRASOUND SIGNS OF HEPATIC TUMORS

Tumors are best characterized as being an-, hyper-, or hypoechoic when compared with normal hepatic parenchyma (Table 1).

Table 1

Hypoechoic lesions	Hyperechoic lesions	Anechoic lesions
Hepatocellular carcinoma	Most commonly benign	Biliary cyst
Metastases of extra-abdominal origin	Gastrointestinal metastases	Hydatid cysts
Hyperplastic nodule	Hepatocellular carcinoma	
Regenerative nodule	Hemangioma	
Adenomatous hyperplasia	Fatty metamorphosis	
Small cysts		
Areas without fatty infiltration in a fatty liver		

TECHNICAL ASPECTS OF INTRAOPERATIVE ULTRASOUND

A complete evaluation of the liver can be performed through most incisions and with minimal mobilization of the liver. There are a variety of IOUS systems available. It is also possible to use standard transabdominal equipment, but it has limitations in resolution, the near field of view, and the bulkiness of the probe [1]. IOUS is best performed using a real-time B-mode electronic scanner system with a 5-MHz or 7.5-MHz side-fire T-shaped linear array probe or a convex-array end-fire probe. Either probe can be cradled in the palm of the hand and directly applied to the surface of the liver without gel or acoustic coupling agent. The convex probe reaches all areas of the liver even if full mobilization has not been performed, and allows greater visualization of the deep liver as compared with the linear array. Regardless of the type of system used, a methodical, systematic approach must be used in all cases. The use of overlapping fields is essential to assess completely the entire liver. We scan the liver with overlapping fields from the dome to the caudal edge, proceeding from left to right through the entire organ in a sequential manner. Scanning at a frequency of 5 MHz allows a depth of penetration of up to 10 to 12 cm, while the 7.5-MHz probe provides a shallower depth of penetration. For deeper lesions, the probe can be placed on the posterior surface of the liver. During the entire survey, the transducer is palmed in the hand of the surgeon such that it never loses contact with the surface of the liver and the surgeon is able to maintain tactile sense of lo-

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Testis tumors – diversity of morphology, immunophenotype and biological behavior

bowel obstruction causes severe perioperative complications in colorectal cancer patients. Purpose & Patients: The aim of this study is to evaluate clinical outcomes of surgery for colorectal patients with bowel obstruction. From 2000 to 2006, fifty four colorectal patients with bowel obstruction underwent emergency operation (n=12) or preoperative intestinal decompression for elective surgery (n=42) in our institution were included.Results: In twenty nine of 42 patients, decompression treatment was achieved for bowel obstruction safely, but in 13 patients conversion to emergency operation because of complications, specifically perforation or unsuccessful decompression. Postoperative complications occurred in 24% and its rate was higher in emergency operation (44%vs7%). Also, twenty four (82%) out of 29 patients with elective surgery could avoid creating stoma, and the rate was lower than that in patients with emergency operation. The hospitalization after surgery was shorter in elective surgery significantly (p=0.0254). Regarding with oncologic results, recurrence developed in 48% (n=15) in stage II and III 31 colorectal patients, and most of them were the hematogenous metastasis. The overall 5year survival rates were 61.2% and the five-year relapse-free survival rates were 34.8%.Conclusion: Preoperative decompression treatment for bowel obstruction was useful to prevent postoperative complications. Presence of preoperative obstruction proximal to colorectal cancer may be a risk factor of prognosis in colorectal cancer patients.

POSTER

P063

ONE CASE OF THE PROGRESS COLORECTAL CANCER WITH A KRASP.G13D VARIANT TREATED EFFECTIVELY WITH FOLFOX + CETUXIMAB

Satoshi Okubo[1], Takumi Ochiai[1], Takanori Ochi[1], Tsuyoshi Sato[1], Kenji Kishine[1], Marie Washio[1], Naoki Sakuyama[1], Takeshi Inoh[1], Akinori Nakatani[1], Masayuki Kitajima[1], Tomoo Watanabe[1], Kazuhiko Nishimura[1], Shunji Futagawa[1], Hidenori Orikasa[2]

[1]Department of Surgery, Tobu Chiiki Hospital, Tokyo Metropolitan Health and Medical Treatment Corporation, Japan, [2]Department of Pathology, Tobu Chiiki Hospital, Tokyo Metropolitan Health and Medical Treatment Corporation, Japan

Cetuximab (Cmab) specifically binds to epidermal growth factor receptor (EGFR), and it is one of the molecular target anticancer drugs inhibiting a work of EGFR, but it is said that the adaptation case is only a KRAS wild type. However, reports that antitumor effect of Cmab in the KRASp. G13D variant is found in late years.We report our experience with the unresectable progress ascending colon cancer case that FOLFOX + Cmab had a complete response to in a KRASp. G13D variant case. <case> 65 years old, women <clinical history> She was noted granular shadow to both lung fields by the chest X-ray examination of the medical examination, and visited in our hospital , respiratory internal medicine. Examination showed greater tubercle in the left main bronchus, and multiple nodules in both lung fields. Also, ascending colon had a mass which was impossible of fiber passage, she visited with introduction consultation to our department. As a result of close investigation, we started FOLFOX4 therapy by a diagnosis of an ascending colon cancer and the multiple metastases to lung.We used Cmab with FOLFOX4 therapy because an examination for KRAS was wild type but p.G13D variant. We assessed the outcome of treatment after the FOLFOX4 therapy (once) & FOLFOX4+ Cmab therapy (six times). Because loss of the lesion of an ascending colon and the left main bronchus nucleus was detected, we performed right hemicolectomy after FOLFOX4+ Cmab therapy twice addition.We reported experience that FOLFOX4+ Cmab therapy had a complete response though KRAS variants.

P064

NEW METHODS FOR INTRAOPERATIVE EVALUATION IN THE RADICAL RECTAL CANCER SURGERY

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Department of General and Operative Surgery, Medical University of Varna, Bulgaria

Patients with low rectal cancer represent a staging and therapeutic challenge as the surgeon needs often to balance the competing requirements for an oncologically sound procedure with the desire to perform a sphincter sparing operation with appropriate functional outcome. This could be possible if a multidisciplinary team is involved as accurate preoperative imaging and diagnosis, routine use of neoadjuvant therapy and reassessment. This approach will help to optimize the individual function and outcome of the patients. While we should always strive to offer a patient sphincter saving surgery, a technically proficient but functionally poor result may not be in the best interests of the patient. Those with very low rectal tumors who undergo neoadjuvant therapy and a low strait stapled or coloanal anastomosis have a high incidence of the functional symptoms of low anterior resection syndrome. The nerve sparing surgery does not have standards for intra operative evaluations and rely only on postoperative follow-up. It is interesting to note that according to literature, around 24 percent of the patients at follow-up reported incontinence with a mean Wexner score of 15. New methods as intra operative nerve mapping and stimulation are developed and their role is investigated in prospective trial.

carcinoma undergoing preoperative intestinal drainage.Methods. A total of 803 consecutive stage I-IV colorectal cancer patients were undergoing intent colectomy between 2000 and 2010. The patients were selected into two groups: obstruction with advanced colorectal carcinoma group (OCRC), which included 87 patients undergoing colectomy with preoperative intestinal drainage, and a Non-obstructing advanced colorectal carcinoma group (CRC), which included those 511 patients undergoing colectomy alone. Morbidity, mortality, and prognosis were assessed. Results. In the drainage methods of OCRC group, long nasointestinal tube drainage was 30 patients (34.5%), or transanally inserted tube drainage was 14 patients (16.1%), drainage of colostomy was 43 patients (49.4%). The mortality rate was 0% in the OCRC group and 0.4% in the CRC group (2 of 511 patients). The morbidity rate was 43.7% in the OCRC group (39 of 87 patients) and 37.2% in the CRC group (190 of 511 patients). The 5-year overall survival rate was 69.5% in the OCRC group and 72.9% in the CRC group [hazard ratio 0.76 (95% confidence interval 0.35 to 1.16; P=0.48)], No statistically significant survival differences were observed in survival between the two groups in stage II, III, IV and over all.Conclusion. Intestinal obstruction with advanced colorectal carcinoma undergoing preoperative colonic drainage is safety and no survival inferiority.

POSTER

P093

THE PREDICTION OF DIFFICULTY OF LAPAROSCOPIC SURGERY AT RECTAL CANCER BY THE PELVIMETRY USING 3D-CT IMAGE

Hisashi Nagahara, Kiyoshi Maeda, Eiji Noda, Masatsune Shibutani, Kenjiro Kimura, Ryosuke Amano, Naoshi Kubo, Hiroaki Tanaka, Kazuya Muguruma, Nobuya Yamada, Masakazu Yashiro, Bunzo Nakata, Masaichi Ohira, Tetsuro Ishikawa, Kosei Hirakawa
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Introduction: Recently, adaptation of operation using a laparoscope for advanced colorectal cancer has been expanded by the progress of laparoscopic surgery. However, we often suffer from the rectal cancer operation, exfoliation around the rectum and anastomosis inside narrow pelvis. Therefore it is useful to distinguish the narrow pelvis before laparoscopic rectal operation when we ascertain operation indication and safety. So we performed pelvimetry using 3D-CT and examined the utility and connection with the complication.
Materials and methods: From January, 2008 to March, 2011, 81 cases of rectal cancer have been performed laparoscopic anterior resection or intrasphincteric resection in our institution, and we measured the obstetric conjugate, sacrum length, pelvic outlet, transverse distance, and interspinous distance of the small pelvis with CT. And we examined the clinicopathologic examination in sex, Body Mass Index, tumor diameter, distance from anus, rate of conversion to open surgery, operation time, bleeding amount, number of stapling, and postoperative complication.
Result: Among 81 cases, male were 50 cases and female were 31 cases. As for man, the pelvic cavity was significantly deep and narrowly in comparison with woman in pelvimetry. Complications of anastomotic leakage and conversion to open surgery were 15 (18.5%) and 10 cases (12.3%), and male were 12 (80%) and 9 cases (90%) of all. Multivariate analysis showed that tumor distance from anus ($p = 0.012$), obstetric conjugate ($p = 0.014$), and sacrum length ($p = 0.017$) were independently predictive of operative time. Others, the distance from anus, and number of stapling were related to anastomotic leakage.
Conclusion: As for the man, pelvis is narrower in comparison with the woman, and the man with narrow pelvis and shorter tumor distance from anus have difficulty to staple and higher risk of complications of anastomotic leakage and open conversion.

P094

LAPAROSCOPIC INTERSPHINCTER RESECTION FOR RECTAL CARCINOMA

Krassimir Ivanov, Nikola Kolev, Anton Tonev, Valentin Ignatov, Georgi Ivanov
Department of General and Operative Surgery, Medical University of Varna, Bulgaria

BACKGROUND: Laparoscopic approach has been reported to be one of the standards for total mesorectal excision in rectal cancer surgery. Intersphincteric resection (ISR) has been reported as a promising method for sphincter-preserving operation in selected patients with very low rectal cancer. METHODS: We underline the important surgical issues surrounding the management of patients with low rectal cancer indicated to laparoscopic intersphincteric resection (ISR). From January 2007 till now, 32 patients with very low rectal cancer underwent laparoscopic TME with ISR. We report and analyze the results from them RESULTS: Conversion to open surgery was necessary in one (3%) patient. The median operation time was 273 min and median estimated blood loss was 110 ml. There was no mortality. Postoperative complications occurred in five (15%) patients. The median length of postoperative hospital stay was 7.2 days. Macroscopic complete mesorectal excision was achieved in all cases. Complete resection (R0) was achieved in 31 (93%) patients. CONCLUSIONS: Laparoscopic ISR is technically feasible and a safe alternative to laparotomy with favorable short-term postoperative outcomes when the surgical team have sufficient experience.

hepatocytes which were on reparative regeneration activity, and we administrated it into abdominal cavity. Results: The performed research has shown that antihepatocytotoxic setum prevents liver-cell necrosis, promoutes reparative regeneration process in toxicaly damaged liver cells, and helps in organ function restoration. Conclusions: Morphological evaluation have shown regeneration process increasing of bipolar hepatocytes number, incteasing of hepatocytes mitogenic activity. By analysis of our results we can postulate that treatment of acute liver failure with our method isolated hepatocyte transplantation and Antihepatocytotoxic serum induce and stimulates reparative regeneration process in toxically damaged liver and it can be effective treatment method.

P217

NEW METHOD OF TREATMENT OF LIVER TOXIC DAMAGES

Eka Kurdadze, Davit Tophuria, Nino Lobjanidze, Nino Chavchanidze, Givi Katsitadze, Irakli Tophuria, Ia Khurtsilava
Human Normal Anatomy, Tbilisi State Medical University, Georgia

Backrounds/Aims: Number of patients presently being with liver toxic damages is constantly increased annually. Despite of intensive study of its methods of pathogenesis and treatment methods the lethal cases ate numerous and at present time, in our century in the best clinics of the world reaches 70 to 80%. Complex method of treatment which unites hemosorbtion and cellular transplantation on one side will provide metabolism and hemodinamics timely category. And on the other side the reparation regeneration stimulation of the sick organ in the rather short period than in each in separation. Methodology: In the expetiment the test was conducted with usage of with 120 Vistar Line white lab rats with weight 170, 200 g. In first group after creation of the model are under examination without treatment. 2 group in the conditions of ethylene-ester mask narcosis after three days of modeling was made one-time hemosorbtion. In 3 group animals the conditions of ethylenester mask narcosis after three days of modeling prformed transplantation of allogenic hepathocytes, 4 group animals the conditions of ethyleneester mask narcosis as well as 2 group animals were made one time hemosorbtion. Furthermore as well as in 3 group animals was conducred transplantation of allogenic live isolated hepathocytes. Results/Conclusion: Out of modeling liver sharp shortage on 3 to7 day all animals of the control group died. Transplantation methods died 70 %; detoxication treatment died 26%. And combined method of live isolated hepathocytes with usage of hemosorbtion methods died 20%. The main reason of death was the liver acute toxic damage..Key words: liver, toxic, damage, hemosorbtion, transplantation.

P218

A CHANGE OF THE STRATEGIES IN LIVER SURGERY IN IV STAGE METASTATIC COLORECTAL CANCER

Krassimir Ivanov, Nikola Kolev, Anton Tonev, Valentin Ignatov, Georgi Ivanov
Department of General and Operative Surgery, Medical University of Varna, Bulgaria

With recent advances in chemotherapy, traditional clinicopathological factors should not be used to exclude otherwise resectable patients from surgery. Pathological or clinical response to chemotherapy has become valuable in determining the treatment for individual patients. Portal vein embolization and two-stage operation with ablative therapy and preoperative chemotherapy should be considered for unresectable liver metastases located in a liver remnant that is at the minimum volume required for survival. The recent E0RTC 40983 trials regarding preoperative chemotherapy for resectable CLM have failed to demonstrate a clear significant advantage. However, patients with a low clinical risk score for the recurrence, such as several metastases of less than 4 cm, and who are fit candidates for liver resection are often offered immediate surgery. Patients at high clinical risk should also be considered for neoadjuvant chemotherapy. One forthcoming and appealing strategy is to adapt postoperative treatment according to tumor response as evaluated by neoadjuvant chemotherapy or by the presence of individual tumor biomarker such as the Kras mutation or single-nucleotide polymorphisms. This could avoid the overtreatment of nonresponsive patients and enable a more tailored approach to treat an individual patient disease. The treatment paradigm for CLM is rapidly changing with the development of newer anticancer chemotherapeutic agents.

P219

RESULT OF SURGICAL TREATMENT FOR PERITONEAL DISSEMINATION OF HEPATOCELLULAR CARCINOMA

Noriaki Nakamura, Takumi Irie, Shinji Tanaka, Shigeki Arii
Department of Hepato-biliary pancreatic surgery, Tokyo medical and dental university, Japan

Inrroduction
Even in the patients with advanced stage, peritoneal dissemination of HCC is rare. Although the recent improvements of the treatment for HCC such as opetation and radiofrequency ablation are remarkable, a treatment for peritoneal dissemination of HCC has not been established. Here we report surgically treated six cases of peritoneal dissemination.
Patients
445 cases of HCC were treated from April, 2000 to June, 2011 in our hospital. The six cases (1.3%) were treated with the surgical operation.
Results

CONFIRMATION LETTER

ON BEHALF OF:

Dr. Nikola Kolev, MD, PhD

in confirmation of that he presented "A MEN 2A Syndrome in a family" a case of his practice on the Multidisciplinary management of patients with neuroendocrine tumours: Meet-the-Expert, at the Charité Hospital, which has been taken place on 12 and 13 December in Berlin, in co-authorship of Anton Tonev, MD, Krasimir Ivanov, MD, PhD, DSc, Valentin Ignatov, MD, PhD, Georgi Ivanov, MD, Alexander Zlatarov, MD, Georgi Todorov, MD.

12, 13. Dec, 2011.

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Organizing Committee

Time	Presenter	Title
10:20AM	S.V. Baydo	Totally Laparoscopic Anterior Resection with Transvaginal Specimen Extraction: The Authors' Initial Institutional Experience
10:30AM	G. Saccomani	Quality of Life after Coloanal Anastomosis for Distal Rectal Cancer: Long Term Functional Outcomes
10:40AM	O. Schwandner	Quality of Life of Submucosal Injection Therapy using Dextranomar Hyaluronic Acid for Fecal Incontinence
10:50AM	P. Sileri	Laparoscopic Ventral Rectopexy for Internal Rectal Prolapse using Biological Mesh: Postoperative and Short-term Functional Results
11:00AM	A. Singh	Gender Disparity in Outcome of Post-surgery Colorectal Cancer Patient over Two Time Periods 1997-2003 vs. 2004-2010: A Retrospective Study from a New York Community Hospital
11:10AM	A. Tonev	Endoscopic Submucosal Dissection for Premalignant Lesions and Early Gastrointestinal Cancer
11:20AM	K. Vestweber	Single Port Colonic Surgery: Experience with more than 300 cases
11:30AM	A. Hiranyakas	Ligation of Intersphincteric Fistula Tract (LIFT) *Video*
11:40AM	C. Missaglia	Regulated Rectal Resection (3R) with singular stapler HEEA for hemorrhoids and obstructed defecation syndrome (ODS) *Video*
11:50AM	B. Bashankaev	Multidisciplinary Team Approach in Elective Surgery of Elderly Colorectal Cancer Patients
12:00PM		Adjourn *(Boxed lunch available for attendees)*

POSTER PRESENTATIONS

Posters will be available for viewing throughout the day.

Time	Presenter	Title
8:00AM-5:00PM	Z. Adamova	Incisional Hernia after Open versus Lapaaroscopic Surgery for Diverticular Disease
	J. Ansell	Systemic Review of Validity Testin in Colonoscopy Simulation
	M. Baek	Significance of Perineural Invasion in Patients with Colorectal Cancer
	M. Campbell	Management of Pilonidal Sinus Disease with Paramedian Incision and Pit Picking
	H. Chung	Single port laparoscopic transabdominal transanal resection (TATAR) with total mesorectal excision for low rectal cancer
	I. Edhemovic	Radio-guided Localization of the Non-Palpable Lesions in the Colon and Rectum - Analysis of 12 Cases
	V. Giaccaglia	Modified Stapled Haemorrhoidopexy: From Purse-string to Parachute Traction Sutures
	M. Grande	Anal Vector Volum Analysis and Pelvic Floor Disorders
	R. Herman	Anal Fistula Plug versus Advancement Flap Fistulectomy for Transsphincteric Anal Fistulas - Prospective Clinical and Physiological Evaluation
	H.A. Jonkers	Te LaPros Study: An International Study to Determine the Optimal Treatment for Rectal Prolapse
	W. Kang	Turcot Syndrome: A Case Report in an Unsuspected Setting
	J. Kim	Multicenter, Randomized trial of Ramosetron versus Palonosetron in Controlling Chemotherapy-induced Nausea and Vomiting in Patients Receiving Chemotherapy with Colorectal Cancer
	N. Kolev	A Change of the Strategies in Liver Surgery in IV Stage Metastatic Rectal Cancer
	J. Lee	Single Port Laparoscopic Left Hemicolectomy (SPLS-LHC) for Colon Cancer
	A. Molano	Robotic Assisted Lower Anterior Resection for Colorectal Disease: Recent Experience and Short-term Outcomes
	G. Reboa	An Original high Volume Device for the Prevention of Haemorrhoidal Recurrence after Stapled Haemorrhoidopexy
	T. Samdani	Adult Intussusception: Clinical Features, diagnosis and Management of Eight Cases
	H. Wang	Colorectal Cancer in Elderly Population in a Community Hospital in New York City: Is Outcome of Age-related Disparity Widening?
	N. Warren	The Innervision Surgical Smoke Removal System

FREE PAPER

...cal Significance of Fecal Occult Blood and Fecal CEA ... Rapid Test Kit for the Detection of Colorectal Cancer

... Kim[1], ...o Hong Kim[2], Jae Im Lee[2], Sang Chul Lee[2], ... Cho[1], Kyungja Han[3], Seong Taek Oh[2] ... The Catholic Univ. of Korea, St. Vincent's ... Dept. of Surgery, The Catholic Univ. of ... Dept. of Clinical Pathology, The Catholic Univ. ...

...ysis of Delayed Postpolypectomy Bleeding in a ...rectal Clinic

..., Seok Wan Lim ... Colorectal Clinic, Korea)

...e Oxymetry in the Bowel Anastomotic End in Colo...l Surgery

...Kolev, Anton Tonev, Krasimir Ivanov, Valentin Ignatov ... and Operative Surgery, Medical Univ. of ... Bulgaria)

... Advantage of Motion MRI on Surgical Treatment for ...al Prolapse

... Yasumi Araki, Toshihiro Noake, Motonori ... Hiroyuki Ozasa, Kentarou ... Coloproctology Center, Japan)

...nostic Efficacy of the Alvarado Score according to ... in Acute Appendicitis

... Ho Kim, Ryoung-Ah Lee, Soon-Sub ... of General Surgery, Ewha Womans Univ. ... Hospital, Korea)

]	March 22 08:30-10:00	GBR 105

... Maeda (Fujita Health Univ., Japan)
... Kim (Inje Univ., Korea)

...gle Port Laparoscopic Surgery Applied to ...cecectomy in Survival Animal Models: Using ...sabdominal Magnetic Anchoring System

... Park, Yong Beom Cho, Chul Young Chang, Hyeon ... Kim, Yong Kwon Cho, Hae-Ran Yun, ... Seong Hyeon Yun, Woo Yong Lee, Ho-Kyung ... of Surgery, Sungkyunkwan Univ. School of ... Samsung Medical Center, Korea)

...gle-access Laparoscopic Colorectal Surgery; Early ...erience in Single Center

... Cho, Seong Hyeon Yun, Hyoung Ran Kim, Chan ..., Hyeon Yong Lee, Chul Young Chang, Hae-Ran Yun ..., Hee Cheol Kim, Woo Yong Lee, Ho-Kyung ... Surgery, Sungkyunkwan Univ. School of ... Medical Center, Korea)

ISUCRS FREE PAPER

FP 10-3 Right Hemicolectomy for Caecal Adenocarcinoma through Laparoendoscopic Single Site Surgery

Maciej Michalik, ...

FP 10-4 Single Incision Laparoscopic Colectomy : Initial Experience

... Hyun Kang, Jeong Yeon Kim, Young Wan Kim, ... Lee, Nam Kyu Kim (Dept. of Surgery, Yonsei Univ. ... of Medicine, Korea)

FP 10-5 Single Port Laparoscopic Ant. Resection (SPLS-AR) for Colon Cancer: Transumbilical vs. Transanal Retrieval

Sang Chul Lee, ... Hyun Min Cho, ... Seong Taek Oh, ... The Catholic Univ. of Korea, ... Mary's Hospital, Korea, Colorectal Division of General Surgery, The Catholic Univ. of Korea, Seoul St. Mary's Hospital, Korea, Colorectal Division of General Surgery, The Catholic Univ. of Korea, St. Mary's Hospital, ... St. Mary's Hospital, Korea)

FP 10-6 A Case of Transgastric Endoscopic Cholecystectomy of the Pig

Sung Woo Cho, ...

FP 10-7 Non-skin-incision Laparoscopic Surgery - Complete Laparoscopic Operation for Colorectal Cancer (CLOC)

Jun-ichi Tanaka, Shungo Endo, ..., Fumio Ishida, Shin-ei Kudo ... Northern Yokohama Hospital, ...

FP 10-8 Laparoscopic Inter-sphincteric Resection

Krasimir Ivanov, Nikola Kolev, Anton Tonev, ... (Dept. of General and Operative Surgery, Medical Univ. of ..., Bulgaria)

TRIBUNA MEDICA

ABSTRACT BOOK

XI International Congress of Medical Sciences

Sofia, Bulgaria
03 - 06 May, 2012

Supplement to Issue 1/2012
Volume LXIV

Surgery

OUR EXPERIENCE IN INTERSPHINCTERIC RESECTIONS IN LOW RECTAL CANCER

Authors: N. Kolev, A. Tonev, V. Ignatov, G. Ivanov, A. Zlatarov, Y. Kalcheva, G. Todorov, B. Andonov. K. Ivanov

University: Medical University of Varna

ICMS 2012 / OP 23 Surgery

Abstract

INTRODUCTION: Intersphincteric resection (ISR) has been reported as a promising method for sphincter-preserving operation in selected patients with very low rectal cancer. METHODS: We report our experience in the management of very low rectal cancer who otherwise are indicated to abdomino-perineal excision. The alternative of intersphincteric resection is widespread approach with very good results. From January 2007 till December, 2011, 34 patients with very low rectal cancer underwent TME with ISR. We report and analyze the results we had achieved. RESULTS: Primary all of the patients were indicated for laparoscopic approach. Conversion to open surgery was necessary in 4 (11%) patients. The median operation time was 233 minutes for the open surgery and 268 minutes for the laparoscopic group. The pelvic plexus was completely preserved in 30 patients (89%). There was no perioperative mortality. Postoperative complications occurred in three (9%) patients. The median length of postoperative hospital stay was 5,4 days. Macroscopic complete mesorectal excision was achieved in 32 cases (94%). Complete resection (R0) was achieved in 31 (91%) patients. CONCLUSIONS: Laparoscopic TME with ISR is technically feasible and a safe alternative to laparotomy with favorable short-term postoperative outcomes. The laparoscopic approach can be undergone in most of the patients with low rectal cancer, expecialy in those without any operation in the abdomen. These procedures enable anal preservation in some patients in whom APR would be otherwise required. Radiotherapy has to be used only in T4 of the indicated for sphincter-preserving very low rectal cancer patients.

Keywords: intersphincteric resection; low rectal cancer

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Surgery

ENDOSCOPIC TREATMENT FOR EARLY RECTAL CANCER

Authors: A.Tonev, N. Kolev, V. Ignatov, G. Ivanov, A. Zlatarov, Y. Kalcheva, G. Todorov, K. Ivanov

University: Medical University of Varna

ICMS 2012 / OP 24 Surgery

Abstract:

INTRODUCTION: Endoscopic treatment for early rectal cancer increased its impact in the present time. The finding of early rectal cancer is a major problem leading to direct influence to the final results. The choice of treatment procedure for early rectal cancer may be complicated because of the anatomy and function of the ano-rectal area, complications of anal dysfunction, and incidence of leakage from the anastomosis after surgery. AIMS: The advantages of endoscopic treatment have to be evaluated. Some of the indications for mini-invasive endoscopic treatment have to be shifted because of the better postoperative results and equal oncologic results. CONCLUSION: A precise diagnosis after endoscopic examination based on the pit pattern with magnifying endoscopy may be an effective aid in selecting the most appropriate endoscopic treatment for early rectal cancer. The approach averts several of the pitfalls commonly experienced with transanal endoscopic microsurgery. Continued investigation and development of this novel modality will be important in establishing its role in minimally invasive surgery.

Keywords: endoscopy; early rectal cancer

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INITIALLY UNRESECTABLE LIVER METASTASES FROM COLORECTAL ORIGIN - THERAPEUTIC OPTIONS AND CASE REPORT

AUTHORS: Julia Kalcheva; Aleksander Zlatarov
CO-AUTHORS: Anton Tonev MD, Assoc. prof. Valentin Ignatov MD, PhD, Prof. Krasimir Ivanov MD, PhD
SCIENTIFIC COORDINATOR: Assoc. prof. Nikola Kolev MD, PhD
Medical Unversity "Prof. d-r Paraskev Stojanov", Varna

INTRODUCTION: The hepatic metastatic disease from colo-rectal cancer sometimes is found initially unresectable. There are several therapy options: radiofrequency ablation (RFA) provides a relatively safe and highly effective method to control local disease and also could be an addition to surgical resection. Another opportunity is the neoadjuvant chemotherapy, which aims: downsizing the tumor, and reducing the risk of recurrence. The preoperative portal vein embolization (PPVE) comes into consideration when the volume of future liver remnant seems to be insufficient when a large resection is planned.

MATERIALS AND METHODS: We present a case of our practice: a 65 years old woman with imaging and morphological data showed colonic cancer and hepatic metastasis in the right hepatic lobe. The surgical intervention was considered appropriate. A tumor mass (8x8cm) was found in proximal rectum. To assess the hepatic metastatic disease, intraoperative ultrasonography was performed demonstrating large lesion spreading from 8 to 7 and 4 A segment; no lesions were found in the left hepatic lobe. Anterior rectal resection with terminal colo-rectal anastomosis was performed. During the first operation the metastasis was considered primarily unresectable with decision for neoadjuvant chemotherapy and followed portal vein embolization because of insufficient remnant liver volume. Afterwards the metastatic hepatic disease was found resectable and major hepatic surgery was undertaken.

RESULTS: The whole 8 segment and partially 7, 6, 5 and 4 segments were resected, along with parietal resection of the middle and right hepatic veins. The procedure was assessed with intraoperative Doppler sonography. The final result was R0 resection with 2-3cm margins, with preserved blood flow and biliary drainage.

CONCLUSION: Patients with hepatic metastatic disease should be thoroughly evaluated by experienced surgeons and radiologists. Initially unresectable lesions could be treated with RFA, neoadjuvant chemotherapy and PPVE, providing loco-regional control or with downsizing the tumor mass, making the unresectable lesion resectable.

KEY WORDS: liver metastases; resection; RFA; PPVE

HYDATID CYST DISEASE

AUTHORS: Aleksander Zlatarov, Julia Kalcheva
CO-AUTHORS: Prof. Valentin Ignatov MD, PhD; Anton Tonev MD, Prof. Krasimir Ivanov MD, PhD.
SCIENTIFIC COORDINATOR: Assoc. Prof. Nikola Kolev MD, PhD
Medical Unversity "Prof. d-r Paraskev Stojanov", Varna

INTRODUCTION: Hydatidosis is a major problem in pediatric practice that can cause significant morbidity and mortality. The liver is the organ affected most frequently (up to 80% of cases), followed by the lung (about 20% of cases), and with lower reported incidence, virtually in any other organ or tissue in the body.

MATERIALS AND METHODS: Current approaches and reasoning concerning optimal treatment of liver hydatid cyst disease are revisited, and recommendations based on available literature regarding ideal management of such cases are presented. Comparative analysis of surgical and percutaneous treatment of children with hepatic hydatid cysts is presented. Data was collected from the records of 98 patients with hydatidosis from 2001 to 2010.

RESULTS: Minor complications were urticaria and fever in 3 patients with PAIR method and inflammation of the surgical wound in 5 patients. Major complications were infection of the cyst cavity in a patient and development of biliary fistula in 2 patients underwent operative surgery. No site recurrences were observed in both of groups, but in three patients we inspected progression of the disease. No mortality, abdominal dissemination, or tract seeding occurred.

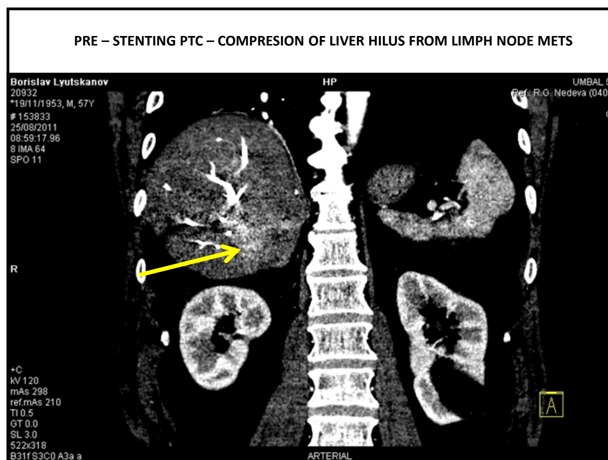
CONCLUSION: Surgery should no longer be regarded as the first choice treatment. PAIR can effectively replace surgical techniques in treatment of liver hydatid disease and may be imposed as a first method of choice. Complication rates seem to be higher with conservative surgical procedures compared to mini-invasive approaches.

KEY WORDS: Hydatid cyst; surgery; PAIR

PALLIATIVE ENDOSCOPIC TREATMENT OF MECHANIC ICTER DUE TO ADVANCED COLORECTAL CARCINOMA -CASE REPORT

N. Kolev, A. Tonev, G. Ivanov, V. Ignatov, A. Zlatarov, Y. Kalcheva, G. Todorov, B. Andonov, M. Hristov, K. Ivanov

VI-th international postgraduate course of IASGO 31 May -1 June 2012, Military Medical Academy –Sofia

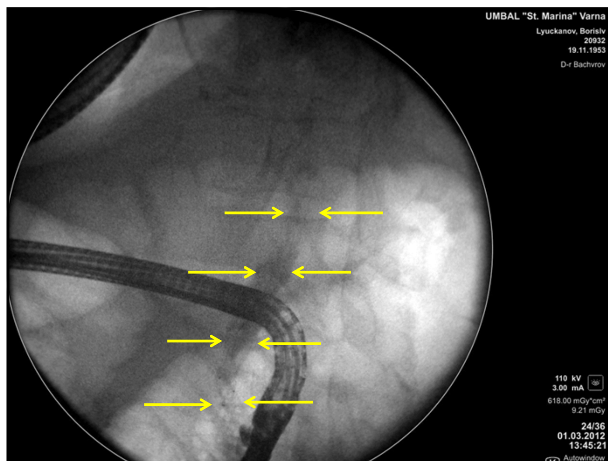


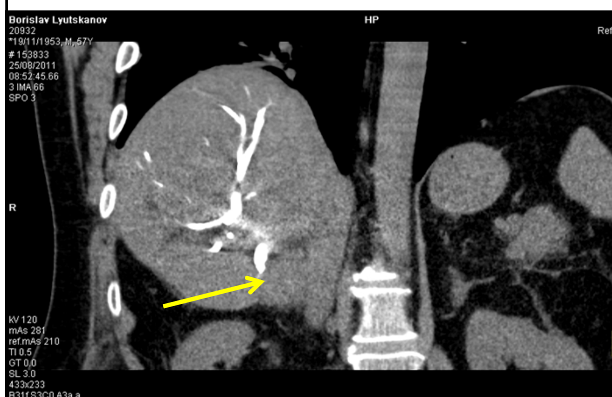
CASE

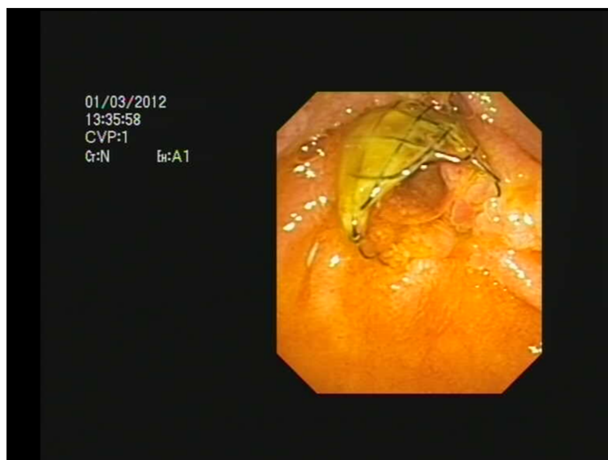
Male with medical history of :

1. **2007** – Anterior Rectal Resection pro Carcinoma
2. **2009** – **Right hepatectomy** for progression of the oncologic disease
3. **2010 – Second hepatectomy**
4. **2011** – Jaundice pro icterus mechanicus – limph node mets in liver hilus

- Endoscopic Self-expandable metal stent was applied







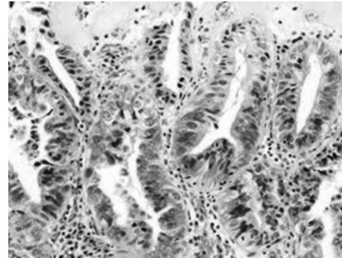
Incidentally Discovered GBC After LC -Case Report

N. Kolev, A. Tonev, G. Ivanov, V. Ignatov, A. Zlatarov, Y. Kalcheva, G. Todorov, B. Andonov, M. Hristov, K. Ivanov

VI-th international postgraduate course of IASGO
31 May -1 June 2012, Military Medical Academy – Sofia

Follow-up…

- On the 7 post-op. day histopathological results showed gallbladder carcinoma with infiltration of all layers of gallbladder wall.



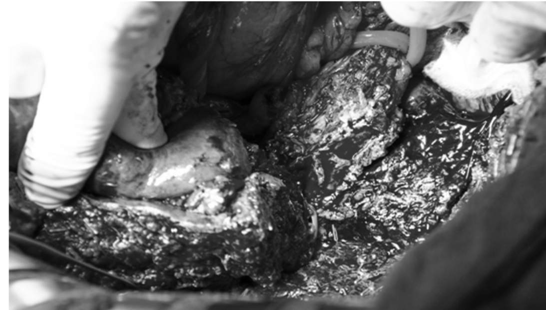
OUR DATA:

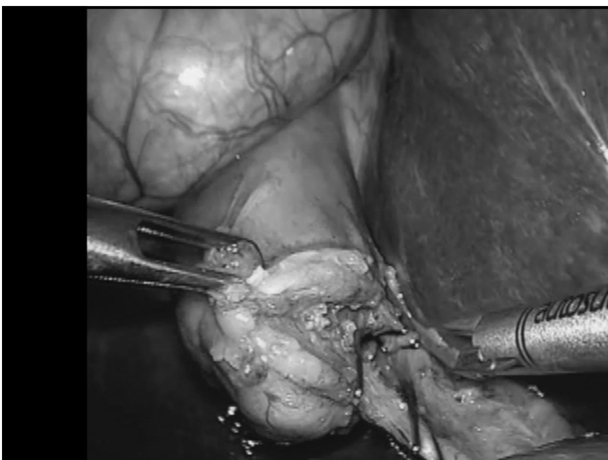
We present a case report of a 57 year old man -

- Ultrasound imaging data for cholecystolithiasis.
- Clinical presentation of calculous cholecystitis.
- Patient undergone laparoscopic cholecystectomy.

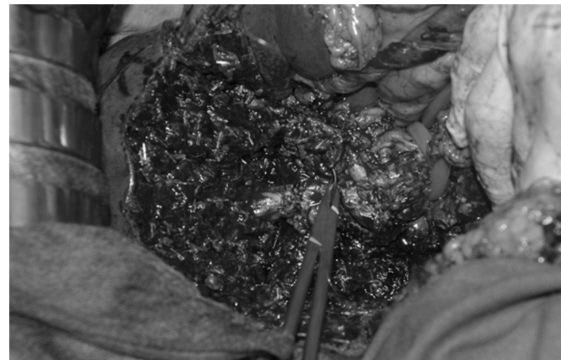
Strategy

- One month after laparoscopic cholecystectomy patient was scheduled for open surgery.





Radical S4b-5 hepatectomy with hilar lymphadenectomy



TRANS TUMOR PTC STENTING IN CASE OF KLATSKIN CARCINOMA

N. Kolev, A. Tonev, G. Ivanov, V. Ignatov, A. Zlatarov, Y. Kalcheva, G. Todorov, B. Andonov, M. Hristov, **K. Ivanov**

VI-th international postgraduate course of IASGO 31 May -1 June 2012, Military Medical Academy –Sofia

We report a case of our practice. 79 years old patient is admitted for a first time in the department with the following complaints:painless jaundice, darkened urine and light colored stool.

Laboratory results: Hb 99; Billirubin total 341; Direct billirubin 180; ASAT 214; ALAT 408; GGT 1573; Alkaline phosphatase 1022.

- Imaging investigations results:
- US – highly dilated intrahepatic bile ducts.
- CT scan – suspicion for tumor process in the hepatic hilum.
- After a consult with hepatobiliary surgeons a decision for MRI was taken.
- MRI results: Klatckin's tumor affecting the left hepatic duct (Bismuth – Corlette IIIb).

After medical consilium a decision for PTC drainage was taken. During the injection of contrast material two defects were visualized: one in the hepatic hilum and another one in the papilla of Vater. The PTC drainage had to be placed twice, due to malpositioning and insufficient bile drainage, it was finally removed.

The patient was assessed as resectable, but because of high comorbidity and advanced age he was considered inoperable. With consideration of the mentioned above we decided to perform percutaneous stenting of intra and extrahepatic bile ducts with the pusher technique.

After the procedure the patient was dehospitalized with normal laboratory results, the cholestasis was overcome, effective palliative bile drainage was accomplished.

RIGHT PORTAL VEIN EMBOLISATION IN METASTATIC LIVER -BRIDGE TO RADICAL AND ORGAN SPARING SURGERY

N. Kolev, A. Tonev, G. Ivanov, V. Ignatov, A. Zlatarov, Y. Kalcheva, G. Todorov, B. Andonov, M. Hristov, K. Ivanov

VI-th international postgraduate course of IASGO 31 May -1 June 2012, Military Medical Academy –Sofia

CASE REPORT OF PPVE

The patient underwent six courses of neoadjuvant chemotherapy with FOLFIRI+Bevacuzimab+Tavagrastim combination.

CASE REPORT OF PPVE

We present a case from our practice – a 65 years old woman with imaging and morphological data for colonic cancer and hepatic metastasis in the right hepatic lobe. The surgical intervention was considered appropriate.

Labarotary results: Hb-111; Hct-0.379; Er-4.6; Leu- 5,1; Tr-336;

CASE REPORT OF PPVE

After second laboratory and imaging evaluation the patient was considered suitable candidate for PPVE. Under US and radioscopic guidance the left hepatic structures were accessed. The portal anatomy of the left hepatic lobe was presented. Ipsisalteral puncture and embolization with Lipiodol of the right branches of portal vein was afterwards performed. CT scan after the procedure was performed to verify the results.

CASE REPORT OF PPVE

A tumor mass (8x8cm) was found in proximal rectum. To assess the hepatic metastatic disease, intraoperative ultrasonography was performed demonstrating large lesion spreading from 8 to 7 and 4 A segment; no lesions were found in the left hepatic lobe.

Anterior rectal resection with terminal colo - rectal anastomosis was performed. Histology result confirmed colonic adenocarcinoma **pT3N1Mx G2.**

CASE REPORT OF PPVE

40 days after the embolization the patient was admitted for radical surgery. The preoperative plan was: right extended hepatectomy (3 sectoral resection). With consideration of new data:

- relative hypertrophy of FLR after PPV
- decrease in tumor size
- possibility of future progression and necessity of second resection, the patient was restaged according to RECIST and decision for major surgery was taken.

Cleveland Clinic
Digestive Disease Institute

23rd Annual
International Colorectal Disease Symposium

33rd Annual
Turnbull Symposium

International Interdisciplinary Education Week | February 14-22, 2012

SCIENTIFIC PAPER SESSION

Program Schedule

TUESDAY, FEBRUARY 14

Grand Ballroom

3:00-7:00PM		Scientific Session **Poster Set-up**

WEDNESDAY, FEBRUARY 15

Grand Ballroom

6:30AM-6:30PM		**Registration** - ACDS/Turnbull & Scientific Session *(Foyer)*
6:30-7:30AM		Scientific Session **Poster Set-up**
6:30-8:00AM		Continental Breakfast
7:30AM	D. Maron	Welcome and Introduction

PODIUM PRESENTATIONS

Moderators: David Maron, MD and Ravi Kiran, MD

7:40AM	O. Bardakcioglu	Growth of Laparoscopic Colectomy in the United States: Did we Reach the Tipping Point?
7:50AM	F. Cadeddu	Focus on Abdominal Rectopexy for Full-thickness Rectal Prolapse: A Meta-analysis of Literature
8:00AM	S. D'Ugo	Adhesional Small Bowel Obstruction after Open and Laparoscopic Colorectal Surgery: A Prospective Longer-Term Study
8:10AM	L. de Campos	Laparoscopic training in Colorectal Surgery: Can we do it Safely?
8:20AM	R. Ghinea	Impact of Blood Transfusion on Long Term Outcome in Laparoscopic Colorectal Operations for Curable Colorectal Cancer
8:30AM	A. Grucela	Anal Fissure: Is Sphincterotomy Really Necessary?
8:40AM	R. Herman	Radiofrequency Anal Sphincter Remodeling: The Influence of Patients Selection on Long-term Clinical and Physiological Outcome
8:50AM	M. Khaikin	Laparoscopic-assisted Transvaginal Rectosigmoid Resection: Our Initial Experience and Technique
9:00AM	A. Koch	Effect of Iatrogenic Spleen Injuries during Colorectal Carcinoma Surgery on the Early Postoperative Result
9:10AM	N. Kolev	Laparoscopic Intersphincter Resection
9:20AM	R. Levine	Colon Surgery in the Elderly: A Retrospective Study from a New York City Hospital
9:30AM		Break
10:00AM	G. Milito	Biofeedback Therapy Plus Anal Electrostimulation for the Treatment of Obstructed Defecation
10:10AM	C. Missaglia	Stapled Transanal Regulated Rectal Resection with Singular HEEA Stapler vs. Double PPH 01 Stapler for Hemorrhoids and ODS (Obstructed Defecation Syndrome)

ЛАПАРОСКОПСКА ИНТЕРСФИНКТЕРНА РЕЗЕКЦИЯ

К. Иванов, В. Игнатов, Н. Колев, А. Тонев

Първа Клиника по Хирургия
УМБАЛ „Св. Марина"- Варна

ВЪВЕДЕНИЕ

- През последното десетилетие започна да се прилага по-широко метода на интерсфинктерната резекция, целящ едновременно сфинктеро-съхраняване и некомпрометиране на онкологичната радикалност.

ВЪВЕДЕНИЕ

- Исторически радикалната резекция за карцином на дисталния ректум се свързва с извършването на абдомино-перинеална резекция.
- Въвеждането на по-близки до тумора дистални резекционни граници, прилагането на неоадювантната терапия и интер-сфинктерната резекция правят възможно извършването на сфинктеро-запазващи операции при болни с ниски ректални тумори.

ВЪВЕДЕНИЕ

- Отворен остава въпросът дали увеличения дял на интерсфинктерните резекции ще доведе до:

  1- намаляване процента на АПР или

  2- намаляване процента на предните резекции с нечиста дистална резекционна линия.

- С широкото налагане тоталната мезоректална ексцизия (ТМЕ)*, концепцията на спесимен ориентирана хирургия доведе до подобряване на резулатите от оперативното лечение на ректалния рак. **

* Heald RJ. Total mesorectal excision is optimal surgery for rectal cancer: a Scandinavian consensus. Br J Surg 1995; 82: 1297–9.

** Kapiteijn E, Marijnen CA, Nagtegaal ID et al. Preoperative radiotherapy combined with total mesorectal excision for resectable rectal cancer. N Engl J Med 2001; 345: 638–46.

ВЪВЕДЕНИЕ

- Развитието на методите за възстановителна хирургия при рак на ректума с ексцизия на част или целия сфинктерен апарат, първоначално приложени при болни с възпалителни заболявания на червата * и реконструкцията чрез ръчна коло-анална анстомоза разширяват индикациите за прилагане на резекции със запазване нормалния път на дефекация.

* Coran AG. A personal experience with 100 consecutive total colectomies and straight ileoanal endorectal pull-throughs for benign disease of the colon and rectum in children and adults.Ann Surg. 1990 Sep;212(3):242-7; discussion 247-8.

ВЪВЕДЕНИЕ

- Техническите постижения в областта на хирургичния инструментариум доведе до възможности за промяна във височината на резекция.
- Вследствие на това, проблеми като качеството на живот и запазване на сексуалната активност излязоха на преден план, като наличието или отсъствието на дефинитивна колостома се определя като независим фактор, влияещ върху качеството на живот според повечето автори *.

* Sprangers MA, Taal BG, Aaronson NK, te Velde A. Qualityof life in colorectal cancer. Stoma vs. nonstoma patients. DisColon Rectum 1995; 38: 361–9.

РАДИКАЛНО ЕНДОСКОПСКО ЛЕЧЕНИЕ ПРИ РАНЕН РЕКТАЛЕН РАК

В. Игнатов, А. Тонев, Н. Колев, А. Златаров, Г. Иванов, Г. Тодоров, К. Иванов

Първа Клиника по Хирургия
УМБАЛ „Св. Марина"- Варна

Online Submissions: http://www.wjgnet.com/2150-5330office wjgp@wjgnet.com doi:10.4291/wjgp.v3.i2.51
World J Gastrointest Pathophysiol 2012 April 15; 3(2): 51-59 ISSN 2150-5330 (online) © 2012 Baishideng. All rights reserved.
REVIEW

Importance of histological evaluation in endoscopic resection of early colorectal cancer

Naohisa Yoshida, Yuji Naito, Nobuaki Yagi, Akio Yanagisawa

- При ранния ректален карцином, лимфни метастази се наблюдават в от 3 до 7% от случаите. Основни методи на ендоскопското хирургично лечение са ендоскопската субмукозна дисекция и ендоскопската мукозна резекция.
- Ендоскопската мукозна резекция (EMP) е широко употребявана като утвърден метод при повърхностни ректални новообразувания с бенигнен характер.

WJGE World Journal of Gastrointestinal Endoscopy
Online Submissions: http://www.wjgnet.com/1948-5190office wjge@wjgnet.com doi:10.4253/wjge.v1.i1.32
World J Gastrointest Endosc 2009 October 15; 1(1): 32-38 ISSN 1948-5190 (online) © 2009 Baishideng. All rights reserved.
REVIEW

Endoscopic submucosal dissection for colorectal neoplasms

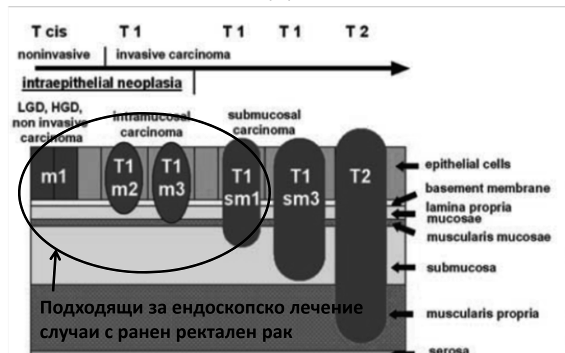
Mitsuhiro Fujishiro

- Класическото определение за ранен ректален рак включва наличие на малигнени клетки, ограничени в субмукозата.
- Съвременните схващания за радикално лечение на ранен ректален рак еволюират до прилагане на ендоскопски хирургични методи.

ВЪВЕДЕНИЕ

- Ендоскопската частична мукозна резекция (piece-meal - резекция) и лапароскопската резекция са приети методи за отстраняване на големи повърхностни тумори над 20мм по хода на дебелото черво.
- Ендоскопската субмукозна дисекция (ЕСД) все още не е широко приета като надежден метод, позволяващ извършването на резекция 'en block' при доказани карциноми на ректума.

ВЪВЕДЕНИЕ



Online Submissions: http://www.wjgnet.com/1007-9327office wjg@wjgnet.com doi:10.3748/wjg.v17.i13.1701
World J Gastroenterol 2011 April 7; 17(13): 1701-1709 ISSN 1007-9327 (print) ISSN 2219-2840 (online) © 2011 Baishideng. All rights reserved.
ORIGINAL ARTICLE

Endoscopic submucosal dissection for premalignant lesions and noninvasive early gastrointestinal cancers

Sadettin Hulagu, Omer Senturk, Cem Aygun, Orhan Kocaman, Altay Celebi, Tolga Konduk, Deniz Koc,

- ЕСД при ректален карцином е технически изпълнима и предлага възможна алтернатива на радикалното лечение на ранен ректален рак.

ДЯСНА ПОРТАЛНА ЕМБОЛИЗАЦИЯ ПРИ МЕТАСТАЗИ ОТ КОЛОРЕКТАЛЕН РАК.

Н. Колев, В. Игнатов, А. Тонев, Г. Иванов, А. Златаров, Г. Тодоров, К. Иванов

Първа Клиника по Хирургия
Университетска болница „Св. Марина“ – Варна

ВЪВЕДЕНИЕ

- Днес ППЕ все повече се използва като предоперативен метод при пациенти на които им предстои голяма чернодробна резекция, а бъдещия остатъчен чернодробен обем е недостатъчен.
- Ако ППЕ не бъде извършена, тези пациенти са изложени на голям риск да развият чернодробна недостатъчност.

Abdalla EK, Hicks ME, Vauthey JN. Portal vein embolization: rationale, technique and future prospects. Br J Surg 2001; 88:165–175.

ВЪВЕДЕНИЕ

- Перкутанната транскатетърна емболизация е метод за вътресъдово отлагане на частици, течност, или механични средства, или кръвен съсирек с цел умишлено запушване на съда.
- Тези частици може да се използват за оклузия на артерии или вени.

Kinoshita H, Sakai K, Hirohasji K, Igawa S,Yamasaki O, Kubo S. Preoperative portal vein embolization for hepatocellular carcinoma.World J Surg 1986; 10:803–808.

ВЪВЕДЕНИЕ

- Много от водещите хирурзи смятат че минималния остатъчен бъдещ чернодробен обем трябва да не е по малко от 25% от първоначалния чернодробен обем, а при пациенти които ще бъдат подложени на химиотерапия този обем трябва да бъде по-висок.

de Baere T, Roche A, Elias D, Lasser P, Lagrange C, Bousson V. Preoperative portal vein embolization for extension of hepatectomyindications. Hepatology1996;24:1386– 1391.

ВЪВЕДЕНИЕ

- Перкутанната транскатетърна емболизация може да бъде изпозлвана както с лечебна така и с палиативна цел.
- Емболизация може да се извърши поетапно, особено в случаите на сложни или множествени лезии.

Предоперативни изследвания

Предоперативната оценка включва торако-абдоминална компютърна томография с 3-измерно измерване на чернодробния обем и ЯМР на черния дроб с коронарни срезове.

Jones OM, Rees M, John TG, Bygrave S, Plant G. Biopsy of resectable colorectal liver metastases causes tumour dissemination and adversely affects survival after liver resection. *Br J Surg* 2005; 92: 1165-1168

ЛАПАРОСКОПСКА КОЛЕКТОМИЯ ПРИ РАК НА ДЕБЕЛОТО ЧЕРВО

А. Тонев, Н. Колев, В. Игнатов, Г. Иванов, А. Златаров, Г. Тодоров, К. Иванов

Първа Клиника по Хирургия
УМБАЛ „Св. Марина"- Варна

ВЪВЕДЕНИЕ

- Предимства в сравнение с отворения достъп при колектомия включват *:
  - по-добри козметични резултати,
  - по-малка постоперативна болка,
  - по-бързо възстановяване на чревната функция
  - по-къс болничен престой и възстановяване на работоспособността .

* Lacy AM, García-Valdecasas JCLaparoscopy-assisted colectomy versus open colectomy for treatment of non-metastatic colon cancer: a randomised trial. *Lancet* 2002; 359: 2224-2229

ВЪВЕДЕНИЕ

- Колоректалният рак е едно от най-често срещаните малигнени заболявания в днешно време *.
- Хирургичното отстраняване на първичния тумор с адекватни маржове и лимфаденектомия осигуряват най-добра свободна от заболяване преживяемост и обща преживяемост.

* A. Cooperman, V. Katz, D. Zimmon, G. Botero. Laparoscopic Colon Resection: A Case Report. Journal of Laparoendoscopic Surgery. August 1991, Vol. 1, No. 4: 221-224

ЦЕЛ

- Нашият обзор обобщава наличната информация за лапароскопска резекция на дебелото черво.

ВЪВЕДЕНИЕ

- Конвенционалната отворена колектомия се счита за златен стандарт, както за малгигнени, така и за бенигнени заболявания на дебелото черво.
- За пръв път лапароскопски подход при колектомия е описан през 1990* и ако тогава е считан за техническо предизвикателство, то днес представлява алтернатива на класическата дебелочревна резекция.

* Braga M, Vignali Laparoscopic versus open colorectal surgery: a randomized trial on short-term outcome. *Ann Surg* 2002; 236: 759-766; disscussion 767

РЕЗУЛТАТИ

- Десет годишно популационно проучване за периода 1996-2006г. включва 3709 лапароскопски колектомии от 192 620 планови колоректални резекции.
- Данните от него сочат, че при пациентите след лапароскопска колектомия се наблюдава значително намаляване на 30-дневната и едногодишната смъртност в сравнение с отворената колектомия*.

* Braga M, Frasson M, Randomized clinical trial of laparoscopic versus open left colonic resection. *Br J Surg* 2010; 97: 1180-1186

ЛАПАРОСКОПСКА РЕЗЕКЦИЯ НА РЕКТАЛЕН РАК

Н. Колев, В. Игнатов, А. Тонев, Г. Иванов, М. Занева, Д. Петров, К. Иванов

Първа Клиника по Хирургия, УМБАЛ „Св. Марина“- Варна

ВЪВЕДЕНИЕ

- Хирургичната резекция при ректален карцином изисква извършването на тотална мезоректална ексцизия (TME) при тумори в средната и ниската част на ректума.
- Ректума и мезоректума представляват една лимфоваскуларна структура което налага извършването на тотална ексцизия до достигане на интактна фасция проприя.
- Този подход недвусмислено показва по-ниска честота на рецидивиране на заболяването и по-дълъг период на преживяемост.

ВЪВЕДЕНИЕ

- Лапароскопската методика при злокачествени тумори е широко застъпена в практиката, като има повече предимства в сравнение с отворената процедура.
- Те включват по-малка интраоперативна кръвозагуба, по-малка следоперативна болка, по-кратък болничен престой, по-бързо завръщане към работа и формирането на по-малко сраствания .

.Kuhry E, Schwenk W, Gaupset R, Romild U, Bonjer J. Long-term outcome of laparoscopic surgery for colorectal cancer: a Cochrane systematic review of randomized controlled trials. Cancer Treat Rev 2008 Oct;34(6):498–504.

Veldkamp R, Kuhry E, Hop WC, et al; COlon cancer Laparoscopic or Open Resection Study Group (COLOR). Laparoscopic surgery versus open surgery for colon cancer: short-term outcomes of a randomised trial. Lancet Oncol 2005 Jul;6(7):477–84.

МАТЕРИАЛ И МЕТОДИ

- Направихме проучване в MedLine с ключови думи „лапароскопска хирургия“ и „ректален карцином“ и открихме 499 публикации.
- Подбраните статии включваха мета-анализи, рандомизирани контролирани проучвания и проспективни проучвания.

ВЪВЕДЕНИЕ

- Първоначалните съмнения относно възникването на порт-сайт метастази и адеквания обем на резекция се отхвърлят постепено.
- Лапароскопският подход при ректален карцином не е универсално приет.
- В това проучване обобщаваме краткосрочните и дългосрочните резултати при лапароскопския метод като отбелязваме някои от техническите аспекти.

РАННИ РЕЗУЛТАТИ

- Предходни мета-анализи показват, че предимствата на лапароскопската хирургия при колоректален рак са:
  - по-нисък морбидитет,
  - по-малка болка,
  - по-бързо възстановяване,
  - по-кратък болничен престой в сравнение с отворената резекция
  - Възможност за спазване на онкологичните принципи.
- Не се установиха значителни различия в при онкологичните резултати и лимфната дисекция

Senagore AJ, Delaney CP, Brady KM, Fazio VW. Standardized approach to laparoscopic right colectomy: outcomes in 70 consecutive cases. J Am Coll Surg 2004 Nov;199(5):675–9.

ЛАПАРОСКОПСКА ФУНДОПЛИКАЦИЯ ПО НИСЕН ПРИ ХИАТАЛНА ХЕРНИЯ - ПЕТ ГОДИШНО ПРОСЛЕДЯВАНЕ

Щ. Щерев, А. Златаров, В. Игнатов, Н. Колев, А. Тонев, Г. Иванов, Пл. Дренакова, К. Иванов

Първа Клиника по Хирургия

УМБАЛ „Св. Марина“- Варна

ВЪВЕДЕНИЕ

- Лапароскопската фундопликация по Нисен е един от главните методи за лечение на рефрактерен гастро-езофагеален рефлукс и симптоматична хиатална херния.
- Комбинацията от достатъчна ефективност и редуциран морбидитет води до увеличаване броя на пациентите с ГЕРБ и хиатална херния, които се насочват за оперативно лечение.

ВЪВЕДЕНИЕ

- Краткосрочните резултати след ЛФН по отношение на епизодите на рефлукс и качество на живот са толкова добри, колкото и след ОФН*, но няма достатъчно резултати в дългосрочен план.
- След двугодишно проследяване на симптоматични пациенти разликата в двете групи вече не е сигнификантна.

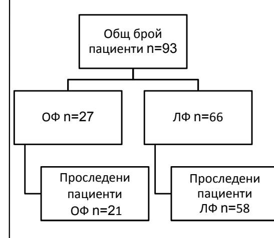
*Ackroyd R, Watson DI, Majeed AW, et al. Randomized clinical trial of laparoscopic versus open fundoplication for gastro-oesophageal reflux disease. Br J Surg. 2004;91:975–982.

ЦЕЛ

- Да се оценят дългосрочните субективни и обективни резултати при пациенти след ОФН и ЛФН, проследявани за повече от 5 години.

МАТЕРИАЛ

- За периода 2001-2011г. в Първа клиника по хирургия на УМБАЛ „Св. Марина” – Варна, са оперирани 93 пациенти.
- Отпаднали n=14
  - несвързан със заболяването морталитет (n=3)
  - несътрудничество (n=11).



МАТЕРИАЛ

- При трима пациенти е била извършена конверсия от лапароскопска към отворена фундопликация, но те са включени в ЛФ групата с цел извършване на „intention-to-treat“ анализ.

ЛАПАРОСКОПСКО ОПЕРАТИВНО ЛЕЧЕНИЕ НА НАДБЪБРЕЧНИТЕ ТУМОРИ

К. Иванов, В. Игнатов, Н. Колев, А. Тонев, Г. Иванов, А. Златаров

Първа Клиника по Хирургия

УМБАЛ „Св. Марина"- Варна

ОПЕРАТИВЕН ДОСТЪП

- Описани са няколко лапароскопски достъпа *:
  - латерален трансабдоминален,
  - преден трансабдоминален,
  - латерален ретроперитонеален
  - заден ретроперитонеален.

* McKinlay R, Mastrangelo MJ, Jr, Park AE. Laparoscopic adrenalectomy: indications and technique. Curr Surg. 2003;60:145–9.

ВЪВЕДЕНИЕ

- В последните години лапароскопската адреналектомия се наложи като стандарт в много центрове по света*.
- В литературата се потвърждават предимствата на лапароскопската над конвенционалната отворена адреналектомия:
  - по-кратък болничен престой,
  - по-малка следоперативна болка,
  - по-бързо възстановяване,
  - по-добър козметичен ефект.

* Gagner M, Lacroix A, Bolte E. Laparoscopic adrenalectomy in Cushing's syndrome and pheochromocytoma. N Engl J Med. 1992;327:1033.

ЦЕЛ

- Представяме серия от случаи с латерален транс-абдоминален достъп.
- Извършихме анализ на следните параметри: оперативно време, кръвозагуба, възстановителен период, честота на конверсии и усложнения.

ИНДИКАЦИИ

- Потенциалните индикации за лапароскопска адреналектомия са:
  - **функциониращ адренален тумор:**
    - алдостероном, глюкокортикоид-, андроген- и естрогенпродуциращи аденоми,
  - **феохромоцитом** с малък до среден размер (*,**)

* Gagner M, Lacroix A, Bolte E. Laparoscopic adrenalectomy in Cushing's syndrome and pheochromocytoma. N Engl J Med. 1992;327:1033.
** McKinlay R, Mastrangelo MJ, Jr, Park AE. Laparoscopic adrenalectomy: indications and technique. Curr Surg. 2003;60:145–9.

МАТЕРИАЛ И МЕТОДИ

- За периода **2006-2012** са оперирани 36 пациенти с образни данни за туморни формации, засягащи надбъбречна жлеза.
- При 28 от болните бе възможно извършването на лапароскопски транс-абдоминален достъп. При 6 болни се извърши отворена адреналектомия.
- **При 2 болни (6%)** се достигна до конверсия

СЪВРЕМЕНО ХИРУРГИЧНО ЛЕЧЕНИЕ НА ЧЕРНОДРОБНА ЕХИНОКОКОЗА

В. Игнатов, Н. Колев, А. Тонев, Г. Иванов, П. Дренакова, Ю. Калчева, К. Иванов

Първа Клиника по Хирургия
УМБАЛ „Св. Марина"- Варна

Цел

- Докладваме нашият 10 годишен опит и оценка на резултатите от лечението на пациенти с диагноза чернодробна ехинококоза.
- Това проучване се извърши с цел да се сравнят резултатите и ефективността на интервенционалните и конвенционалните оперативни техники за лечение на чернодробния ехинокок.

ВЪВЕДЕНИЕ

- Ехинококозата е космополитно разпространена паразитоза. Видът E. granulosus преобладава в повечето от страните по света и особено в тези в Средиземноморския район.
- В сравнение с останалите зоонози, ехинококозата води най-често до продължителна нетрудоспособност, чести рецидиви, не рядко до трайна инвалидизация и висок леталитет, което я прави тежък медико-социален и стопански проблем за страната ни.

Grosso G, Gruttadauria S, Biondi A, Marventano S, Mistretta A. Worldwide epidemiology of liver hydatidosis including the Mediterranean area. World J Gastroenterol. 2012 Apr 7;18(13):1425-37

МАТЕРИАЛ

- Направен е сравнителен анализ на отворените и лапароскопски оперативни подходи при пациенти с чернодробна ехинококоза.
- Изследвани са 235 болни с ехинокок на черен дроб – 98 деца и 137 възрастни в периода от 2001 до 2011година.

ВЪВЕДЕНИЕ

- Данни от литературата сочат, че черния дроб е най-често засегнатия орган - до 80% от случаите.

Nunnari G, Pinzone MR, Gruttadauria S, Celesia BM, Madeddu G, Malaguarnera G, Pavone P, Cappellani A, Cacopardo B. Hepatic echinococcosis: clinical and therapeutic aspects. World J Gastroenterol. 2012 Apr 7;18(13):1448-58

МАТЕРИАЛ

- Демографските данни, клиничната картина, локализацията на кистите, данните от оперативните протоколи, и резултатите от постоперативното проследяване на пациентитие бяха изведени и щателно анализирани.
- Видът на приложените хирургически интервенции е определен от локализацията, размера и характеристиката на кистите и общото състояние на пациента.

SURGICAL STRATEGIES FOR LIVER METASTASES FROM COLORECTAL CANCER

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Patients with liver metastases from colorectal cancer (CRC) present a major public health challenge. Approximately, 1.2 million cases of CRC occur yearly worldwide, with 412,900 new cases diagnosed in western Europe alone and 150,000 in the United States.1,2 Resection of colorectal liver metastases (CRLM) is the only treatment offering the possibility of cure and has been shown to provide clear survival benefits.3 Unfortunately, only 10% to 20% of patients with CRLM are eligible for this procedure upfront. On the other hand, during the last 10 years, major advances in the management of CRLM have taken place involving principally three different fields: Oncology (new and more effective chemotherapeutic agents), interventional radiology (portal embolisation and radiofrequency), and surgery (better instruments and newer techniques). These advances as part of a multidisciplinary team approach have gradually but effectively increased the resectability rate to 20%-30% of cases with a 5-year survival of 35%-50%.
We aim to report the new trends in strategies about surgical treatment of colorectal liver metastases and our experience according to surgical and oncological outcome in patients, operated for IV stage colorectal cancer.

ENDOSCOPIC TREATMENT IN EARLY COLO-RECTAL CARCINOMA

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INTRODUCTION: With the advance of the surgical and endoscopic devices the rate of early colorectal cancer has increased. Some of the treatment strategies should be reconsidered in order to achieve better postoperative results, without compromising the oncological principles.

METHODS: In a prospective study 47 patients with early colorectal cancer were diagnosed and managed by curative endoscopic treatment for the period 2010-2012. An early colorectal cancer is considered adenocarcinoma in situ and T1. By endoluminal ultrasound, we ruled out invasion of the muscle layer.

RESULTS: All patients were diagnosed and cured in the First Surgical Clinic at the University Hospital “St. Marina”- Varna. We performed radical endoscopic treatment in 44 patients. In three patients, the endoscopic treatment failed because of the localization of the neoplasm. In 28 patients we performed endoscopic submucosal resection and in 27 patients (96%) R0 margin was achieved. In 16 patients with carcinoma in situ endoscopic submucosal resection was performed, followed by radical treatment. The complications were perforation in 1 patient (4%), in whom a laparotomy with segmental resection was performed; in 2 patients bleeding occurred, which was controlled by endo-clips. All 48 patients were followed-up endoscopically. In 32 patients, the control endoscopy was performed on the 6th and the 12th month, and in 16 patients – on the 6th month. Two patients were found to have a local recurrence – 4.5%.

CONCLUSION: Our results suggest that early colorectal cancer might be radically cured by endoscopic resection after adequate preoperative local and system staging, achieving better postoperative results and similar oncological results.

Methods. In this study 48 patients were included with CRC and liver metastases. In all patients surgery of primary CRC and liver metastases was performed. Patients were divided into two groups. Patient who had same time surgery of CRC and liver metastases, and patients who had surgery of CRC at first and after neoadjuvant chemotherapy liver metastases were operated. Patients who had disease progression after chemotherapy were not included in this study.

Results. In 29/48 patients the same time surgery was performed for primary CRC and liver metastases. All of these patients had adjuvant chemotherapy after surgery. In 19/49 treatment started with resection of primary tumor and after neo adjuvant chemotherapy was applied in combination with biological therapy. By applying those therapies, possible resectable liver metastases were converted to resectable metastases. After that liver resection was performed. Survival in 3 year period in first group was 62 % (18/29) and in second group 58 % (11/19).

Conclusions. Multidisciplinary oncological approach is necessary in treatment of patients with CRC and liver metastases. By applying neoadjuvant chemotherapy initially nonresectable liver metastases we convert to resectable and survival rate is almost the same as patients in earlier stadium of disease.

P22

The "modern" technique of abdominoperineal resection of the rectum is in fact so old

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The "modern" technique of abdominoperineal resection, described by F. Mouvais et al. in Journal de Chirurgie Visceral vol. 148, nr. 2, 2011, considered essential to performe a cylindric excision and the TME after Heald. The schema of cylindric excision of the rectum is the same with that published by Victor Pauchet in 1931 in Paris, after Miles.

An earlier description of the APR is made by Quenu at the XII French Congress of Surgery, Paris 17-24 oct 1898. A similar technique is described by M. Guibe and Jean Quenu in "Chirurgie de l'abdomen" Masson Ed., Paris 1930, and by John Bruce and Robert Walmsley in "Beesley and Johnoston's Manual of Surgical Anatomy", Oxford University Press, 1939.

So that the "modern technique" of abdominoperineal resection is real old indeed.

Conclusion. We must not forget our history of surgery.

P23

Surgical treatment of liver metastases (LM) from colorectal cancer (CRC). Influence of age on the postoperative results

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Background. Because of the ageing of the population, 25 % of Europeans will be over 65 years old in 2030. In this age group malignancies are the second leading cause of death and the leading cause for morbidity. 76 % of patients with newly diagnosed CRC are between 65 and 85 years of age. CRC is the second leading cause of death among malignancies. According to data from Bulgarian NCR there are 4418 newly diagnosed cases for 2006, and 2882 (65 %) of them are over 65 years old. Liver metastases occur in 28-50 % of all patients. Radical liver resection is the only curative option. Assessment of the benefits vs. risk of surgical resections of CRC LM in elderly patients in the past gave reason surgical treatment to be performed only in single cases. The advancement of surgical technique, modern anesthesiology and intensive care make the liver resection today a safe procedure with low morbidity and mortality of only 0-11 % irrespective of age.

Methods. For the period 01.03.2009- 31.12.2012 in the Clinic of Surgery at the Military Medical Academy and Eurohospital, Plovdiv, Bulgaria, 84 patients undergo surgery for CRC LM. 53 (63 %) of them are over 65 years. Radical surgery was performed in 41 (49 %) cases, 28 (69 %) of them are >65 years. The following procedures are performed—right hemihepatectomy in 6 patients, left lateral sectionectomies—4, two stage resection—1, bisegmentectomies—3, segmentectomies—9, metastasectomies—5. Simultaneous resections were performed in 11 elderly patients (40%). The radical operations in patients<65 are 12 (39 %). 4 of them are simultaneous resections: one anterior resection with coloanal anastomosis and left lateral sectionectomy; left hemicolectomy with left lateral sectionectomy; anterior resection with segmentectomy VI, metastasectomy in SVII and para-aortic lymph node dissection; anterior resection with multiple metastasectomies. In 8 cases metachronous metastases are resected: one right hemihepatectomy; one right lateral trisectionectomy after right portal branch ligature and rectum amputation; three left lateral sectionectomies; three segmentectomies with metastasectomies.

Results. Complications are registered in 6 patients over 65 (11.3 %) (biloma; anastomotic leak with peritonitis; stress-ulcer GI bleeding; infected bile collection with peritonitis; hemorrhagic shock) and in 3 patients under 65 years (9.7 %) (internal pancreatic fistula with operative wound suppuration; biloma). Perioperative mortality is 1.2 % (one patient in the>65 group).

Conclusions. Age is not a limiting factor for radical treatment of CRC LM. Regardless of the significantly larger number of comorbidities in elderly patients, liver resections can be performed successfully with a postoperative complications rate comparable to those of patients under 65 years.

P24

Multimodal strategies for colorectal liver metastases

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Background. Colorectal cancer is one of the most significant malignant diseases as every year its frequency is increasing. Around 60 % of the patients develop metastases, as half of them are liver limited disease. The liver mets are the main reason for death in patients with CRC. The surgical resection is the most effective treatment

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Background. Rectal cancer (RC) rate increases. According to the Bulgarian National Cancer Registry in 2010 are registered 1893 new patients. RR is characterized with specific diagnostic and treatment. Neoadjuvant radiotherapy is a standard in the complex treatment of the T3 tumors, leading to reduction of the local recurrence rate. Laparoscopic anterior resection is accepted as a standard in some European and Asian countries, despite some controversial data. There is no significant difference in the 5 year overall survival rate between laparoscopic an open group. Laparoscopic surgery for RR is characterized with more frequent infiltration of the circumferential margin, compared to the open surgery. There is no difference in survival between these two groups. Increased perioperative mortality and worse 5 year survival is found in patiens with conversion from laparoscopic to open operation.

Methods. For the period 2008-2012 in Clinics of Surgery of MMA and Eurohospital Plovdiv—120 patients with RC undergo surgery—68 (56%) for distal cancer and 52 (44%) for cancer in the upper third of the rectum. 78 open and 42 (35%) laparoscopic resections are performed. Patients with distal rectal cancer undergo 28 (41%) mini-invasive procedures and 40 open resections. Laparoscopic resections are divided in three groups (low anterior resections—12, ultralow anterior resections with colo-anal anastomosis—8, video-assisted rectal amputations 8). All patients undergo neoadjuvant therapy.

Results. We have 3 patients with complete pathoanatomical response after neoadjuvant chemoradiotherapy. We don't find infiltration of the circumferential margin after laparoscopic or open resection. R1 involvement in 2 patients after open and 1 after laparoscopic resection. The laparoscopic anterior resection is characterized with lower blood loss (160 vs. 250 ml), longer operation time (190 vs. 130 min), faster recovery of the bowel function and shorter hospital stay (6 vs. 9 days).

Conclusions. Laparoscopic rectal surgery is successful alternative of the open procedure, leading to similar long-term results. When performed after neoadjuvant therapy from trained laparoscopic team it leads to low rates of conversion and circumferential margin infiltration, slighter pain and faster bowel function recovery.

P43

Outcomes of laparoscopic primary tumor removal for disseminated colon cancer

I. E. Khatkov[1], Y. A. Barsukov[2], V. A. Aliev[2], D. V. Kuzmichev[2], A. O. Atroshchenko[1], S. V. Pozdnyakov[2], P. S. Tyutyunnik

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Background. The primary tumor resection, even in patients with synchronous multiple metastases in the liver and/or other organs, allows to increase two-year survival in comparison with symptomatic operations (colostomy or bypass). Adjuvant chemotherapy after cytoreductive surgery may improve the results of a two-year survival. The laparoscopic precision technique may minimize the surgical complications and to shorten the time to chemotherapy. It could helps to optimize treatment strategy and to expand the indications for cytoreductive operations, especially for elderly patient.

Aim. The aim of the study is to determine the role of laparoscopic cytoreductive surgery in combined treatment for patients with colon cancer and synchronous distance metastases.

Methods. Forty four patients (30-80 years old) underwent laparoscopic primary tumor removal: T_2-2 and T_3-42 patients, metastases in one organ (M_{1a}) were diagnosed in 37, two or more organs (M_{1b})-7 patients. Right hemicolectomy underwent 9 patients, left hemicolectomy-3, sigmoidectomy-24, rectal resection-3, and Hartman's procedure-5. The preoperative complications of the primary tumor were detected in 31patients (bleeding-12, obstipation-14, toxicemia-7). Simultaneous R_0 resection performed in 2 patients, staged resection-10.

Results. The postoperative complications were diagnosed in 2 (4.55%) patients (1-anastomosis leakage, 1- mesenteric ischemia) that is 2 times less as compared to open surgery. The average hospital stay in the clinic was 7 days. The time to start the chemotherapy reduced since 30 days after open surgery up to 14 days after laparoscopic procedure. The 2-year survival results after open and laparoscopic surgery were comparable: 69.5% after laparoscopic and 61.5%-after open surgery, $p=0.97$.

Conclusions. The laparoscopic surgery can be included in combined treatment scheme for disseminated colon cancer especially for elderly patients.

P44

Early rectal cancer—endoscopic radical treatment

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Background. The standard radical treatment for early rectal cancer includes a removal of specimen with underwent total mesorectal excision. Some new techniques for endoscopic treatment could shift the strategy for obtaining the postoperative results.

Methods. We aim to proof the validity of radical endoscopic treatment of early rectal carcinoma by ESD procedure. Forty patients with early-stage rectal cancer (carcinoma in situ, T1sm1 and T1sm2) were enrolled. All of them were staged by 3-D endorectal ultrasound and endoscopicaly treated.

Results. The mean lesion size was 33.0 mm (range 19-82 mm), and the mean operating time was 82 min (range 48-131 min). Thirty-seven lesions were resected en bloc with tumor-free margins—92% successful rate. Perforation occurs in 2 patients (5%), which were treated conservatively. Major bleeding after ESD occurs in 4 patients (10%) and was stopped by endoscopic hemostasis.

Conclusions. This ESD procedure for early-stage rectal cancers is feasible and safe. The postoperative results are significantly better in comparison of radical surgical treatment. The perioperative morbidity is different as type and the postoperative period is shorter.

P45

Endoscopic recanalization of tumor in treatment of rectal cancer complicated by large bowel obstruction

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mesorectum excision is performed. The dissection reaches the peritoneal reflection. Splenic flexure mobilization and incision of the peritoneal reflection are performed by laparoscopy. The specimen is usually removed by mini laparotomy and in favourable cases it can be removed transanally. Frozen-section histology will evaluate the margins. The colon is pulled out through the anus to perform colo-anal anastomosis. Diverting ileostomy is carried out.

Preliminary results. The technique of ETATMR was developed in four cadavers. From October 2008 ETATMR by TEM was performed in eight patients with rectal cancer (5 males, 3 females, median age 66 years, range 41-77). Seven patients underwent neoadjuvant radiochemotherapy (nRCT) and one patient (T3N0) with recurrent rectal cancer after local excision received adjuvant radiochemotherapy. Final staging was pT3N1 (1), pT3N0 (1), pT2N0 (4), pT0N0 (1), pT0NX (1). Mean tumor diameter was 3 cm (range 1-5 cm). Mean tumor distance from the anal verge was 2.9 cm (range 2-4 cm). In five patients a protective ileostomy was performed. Mean operative time was 450 min (range 360-600 min). No severe intraoperative complication occurred. Postoperative complications included anastomotic leakage (3) and temporary urinary incontinence (1). Mean hospital stay was 16.6 days (range 9- 22 days). Late complications included anastomotic stenosis (2) and recto-vaginal fistula (1) treated by stent.

Conclusions. ETATMR by TEM seems to be a safe and effective approach for the treatment of low rectal cancer. Adequate experience in ELRR by TEM is mandatory.

P50

Intraoperative evaluation of pelvic autonomic nerves in rectal cancer surgery

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The radical treatment of rectal carcinoma includes resection in clear margins and total mesorectal excision (TME) which is called "gold standard". The aim is to achieve low incidence of local recurrence and hopefully no distant metachronous metastases. The clear margin rule includes excision to the level of pelvic floor and the rectum has to resected as 1 sm below the tumor. These conditions could be breached and the chance of visceral pelvic fascia tearing is raised and mesorectal tissue might reside in the pelvis. There are some problems in quality control of auditing the procedure. Anatomically, the autonomic nerves run between the visceral and parietal pelvic fasciae since the nerves must be preserved to make visceral fascial envelop. All of the surgeons try to obtain nerve-preserving surgery but some patients become incontinent or impotent. There is a need an accurate tool for intraoperative evaluation of nerve status—a tool for intraoperative pelvic nerve mapping. Intraoperative stimulation resulted in significantly increased amplitudes of the time-based electromyographic signal of the IAS, confirming nerve preservation.

P51

Management of tissue defects after total pelvic exenteration

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Total pelvic exenteration (TPE) is the only curative procedure in advanced pelvic cancer and in massive local recurrences. TPE leaves a major defect in pelvico-perineal region. The remaining pelvic dead space and the absence of the perineal support result in many postoperative complications. Delayed healing, bowel fistulae, occlusion or protrusion and infection are frequent complications of this procedure. During 2000-2012, in "Fundeni" General Surgery and Liver Transplantation Clinic, Romania, 248 patients with advanced pelvic cancer and invasive recurrences were operated by the author. For 132 patients, various procedures for pelvic and vaginal reconstruction (non resorbable mesh [8], omental flap [79], muscular and musculo-cutaneous flaps - rectus abdominis [58], gluteal [4], gracilis [9] and multi-flap [15]) were performed in order to fill the pelvi-perineal defects, restore form and function and reduce mutilating consequences of the exenterative procedure. Technical principles, indications, contraindications, advantages and disadvantages of these procedures are outlined. We found that complications related to total pelvic exenteration dramatically decreased and primary healing of the perineal wound was superior.

P52

Preoperative chemoradiation affects pudendal terminal motor latency in rectal carcinoma patients

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[2]Moscow Herzen Research Oncology Institute, Moscow, Russia

Background. In spite of decreasing local recurrences rate for rectal carcinoma due to preoperative irradiation, neoadjuvant treatment can worsen functional results after sphincter-saving operations.

Methods. From 2009 to 2010, in 20 pts (12 male, average age 5.3±9.3 years) with T2-3N0-2M0 rectal carcinoma pudendal terminal motor latency (PTML) and computed needle electrode electromyography of external sphincter were recorded before and in 4 weeks after chemoradiation upfront to surgery. PTML up to 2.2 ms was considering as normal rate and measured using digital examination with St-Marks glove. Irradiation was given concurrently with 5-FU 350 mg/m² and cisplatin 90 mg up to total dose 47 Gy. Surgery was performed in 4-7 weeks after chemoradiation (CRT).

Results. In males PTML have been risen from 2.9 to 4.3 ms (p= 003) and from 5.4 to 10.9 ms (p=003) in right and left side accordingly, while in females no any significant changes were found (from 2.1 to 2.4 ms, p=.161 and 4.5 to 2.5 ms, p=917). Rest and squeeze electrical activity of external sphincter has been decreased from 226.5±157.3 to 196.9±141 mcV, (p=.048) and from 369.7±226.4 to 262.4±138.1 mcV (p=041) respectively. In term of gender there was no difference between rates of electrical activity before and after CRT.

ISUCRS FREE PAPER

FP 9-4 **Clinical Significance of Fecal Occult Blood and Fecal CEA Dual Rapid Test Kit for the Detection of Colorectal Cancer**
[illegible] Jo Kim[1], [illegible] Hong Kim[1], Jae Im Lee[1], Sang [illegible] Lee, [illegible], Hyeon-Min Cho[1], Kyungja Han[1], Seong [illegible]
([1]Dept. of Surgery, The Catholic Univ. of Korea, St. Vincent's Hospital, Korea, [2]Dept. of Surgery, The Catholic Univ. of Korea, Korea, [3]Dept. of Clinical Pathology, The Catholic Univ. of Korea, Korea)

FP 9-5 **Analysis of Delayed Postpolypectomy Bleeding in a Colorectal Clinic**
Do Hyoung Kim, Seok Won Lim
(Dept. of Surgery, Hang Colorectal Clinic, Korea)

FP 9-6 **Pulse Oxymetry in the Bowel Anastomotic End in Colorectal Surgery**
Nikola Kolev, Anton Tonev, Krasimir Ivanov, Valentin [illegible]
(Dept. of General and Operative Surgery, Medical Univ. of Varna, Bulgaria)

FP 9-7 **The Advantage of Motion MRI on Surgical Treatment for Rectal Prolapse**
[illegible] Komiyama, Yasuto Arik, Toshihiro Noake, [illegible] Nakagawa, Yasue Iwatani, Hiroyuki Ozasa, Kentarou Nabeyama, Masahiro Takano
(Dept. of Surgery, Kurume Coloproctology Center, Japan)

FP 9-8 **Diagnostic Efficacy of the Alvarado Score according to Age in Acute Appendicitis**
[illegible] Oh, Kwang-Ho Kim, Ryoung-Ah Lee, [illegible]
([illegible] of General Surgery, Ewha Womans Univ. [illegible] Hospital, Korea)

[Free Paper 10]	March 22	GBR
MIS	08:30-10:00	105

Moderators Kentarou Maeda (Fujita Health Univ., Japan)
Young Duck Kim (Inje Univ., Korea)

FP 10-1 **Single Port Laparoscopic Surgery Applied to Ileocecectomy in Survival Animal Models: Using Transabdominal Magnetic Anchoring System**
Chan Ho Park, Yong Beom Cho, Chul Young Chang, [illegible] Yong Lee, Hyoung Ran Kim, Yong Kwon Cho, Hae [illegible] Yun, [illegible] Kim, Seong Hyeon Yun, Woo Yong Lee, [illegible] Chun (Dept. of Surgery, Sungkyunkwan Univ. School of Medicine, Samsung Medical Center, Korea)

FP 10-2 **Single-access Laparoscopic Colorectal Surgery; Early Experience in Single Center**
Yong Kwon Cho, Seong Hyeon Yun, Hyoung Ran Kim, Chan [illegible], Hyeon Yong Lee, Chul Young Chang, [illegible] Yong Beom Cho, Hee Cheol Kim, Woo Yong Lee, [illegible] ([illegible] of Surgery, Sungkyunkwan Univ. [illegible])

ISUCRS FREE PAPER

FP 10-3 **Right Hemicolectomy for Caecal Adenocarcino[illegible] Laparoendoscopic Single Site Surgery**
Maciej Michalik, [illegible]
Vascular Surgery, [illegible]

FP 10-4 **Single Incision Laparoscopic Colectomy : Initia[illegible] Experience**
Hyuk Hur, Byung Soh Min, Young [illegible], Jeong Hyun Kang, Jeong Yeon Kim, [illegible] Young Lee, Nam Kyu Kim (Dept. of [illegible] College of Medicine, Korea)

FP 10-5 **Single Port Laparoscopic Ant. Resection (SPL[illegible] Colon Cancer: Transumbilical vs. Transanal R[illegible]**
Sang Chul Lee[1], Hyung Jin Kim, [illegible] Won Kyung Kang[2], Hyeon Min Cho[2], [illegible] Hyuk Ahn[1], Jun Gi Kim[2], Seong Taek Oh ([illegible] of General Surgery, The Catholic Univ. of [illegible] Mary's Hospital, Korea, [2]Colorectal [illegible] Surgery, The Catholic Univ. of Korea, [illegible] Hospital, Korea, [3]Colorectal Division [illegible] Catholic Univ. of Korea, St. Mary's [illegible] Division of General Surgery, The [illegible] Vincent Hospital, Korea, [illegible] Surgery, The Catholic Univ. of [illegible] [illegible]Colorectal Division of [illegible] Korea, Incheon St. Mary's [illegible] of General Surgery, [illegible] Mary's Hospital [illegible]

FP 10-6 **A Case of Transgastric Endoscopic Cholecyst[illegible] the Pig**
[illegible] Won Choi, Young [illegible] Hur[1], [illegible] Kim [illegible] Soonchunhyang Univ., Korea, [illegible] Soonchunhyang Univ., Korea)

FP 10-7 **Non-skin-incision Laparoscopic Surgery - Con[illegible] Laparoscopic Operation for Colorectal Cancer**
Jun-ichi Tanaka, Shungo Endo, [illegible] Hidake, Fumio Ishida, [illegible] Showa Univ. Northern Yokohama [illegible]

FP 10-8 **Laparoscopic Inter-sphincteric Resection**
Krasimir Ivanov, Nikola Kolev, [illegible]
(Dept. of General and Operative [illegible] Varna, Bulgaria)

ENDOSCOPIC SUBMUCOSAL DISSECTION FOR RECTAL CANCER

A. Tonev, N. Kolev, V. Ignatov, G. Ivanov, A. Zlatarov, T. Kirilova, K. Ivanov

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Varna, Bulgaria

BACKGROUND

Rectal cancer is one of the commonest gastrointestinal cancers worldwide. Low anterior resection and abdomino-perineal resection with total mesorectal excision are the standard treatment methods used for patients with low rectal cancer. However, rectal resection requires surgicalintervention with considerable morbidity. Low rectal cancer presents a challenge to surgeons with regard to local disease control and sphincter preservation. With conventional abdomino-perineal resection, an acceptable local control rate can be achieved; however, the permanent stoma is associated with an increased risk of sexual and/or urinary dysfunction. Endoscopic resection and transanal excision are regarded as alternative procedures to radical surgery in patients with early rectal cancer. Analysis of surgically resected specimens revealed that in cases of early colon cancer with a depth of invasion of > 1000 µm from muscular layer (SM 1 or SM2), no lymphatic invasion, no vascular involvement, or without a poorly differentiated adenocarcinoma component, curative resection can be obtained by endoscopic treatment. Endoscopic submucosal dissection (ESD) is an advanced technique, compared with EMR, by which higher *en-bloc* resection and lower rates of tumor recurrence are achieved However, until now, no comparisons between transanal excision and endoscopic resection in patients with early rectal cancer have been made.

AIM

The aim of the present study was to compare complete resection and recurrence of early rectal cancer after transanal excision to endoscopic resection, and to investigate the safety and efficacy of transanal excision compared to endoscopic resection for early rectal cancer.

MATERIAL

Between May 2009 and December 2012, 32 patients were selected for the study. Candidates for transanal excision were chosen according to the following criteria: the mobility, size (< 3.5 cm), and accessibility (usually within 14 cm of the anal verge) of the tumor.

Criteria for endoscopic resection of early rectal cancer at our institution included the following: (1) well or moderately differentiated adenocarcinoma on the forceps biopsy; (2) the mucosal or minute submucosal (sm1 < 1000 µm or sm2, diagnosed ultrasonograpfically by endorectal ultrasound) type; (3) no lymphatic or vascular invasion. Whether these criteria were satisfied or not was not known before endoscopic resection. The decision to treat patients with endoscopic resection was therefore based on our own close observation and confirmation of the lesion. After the transanal excision or endoscopic resection procedures, the patients were regularly re-examined by means of colonoscopy and/or abdominal computed tomography.

METHODS

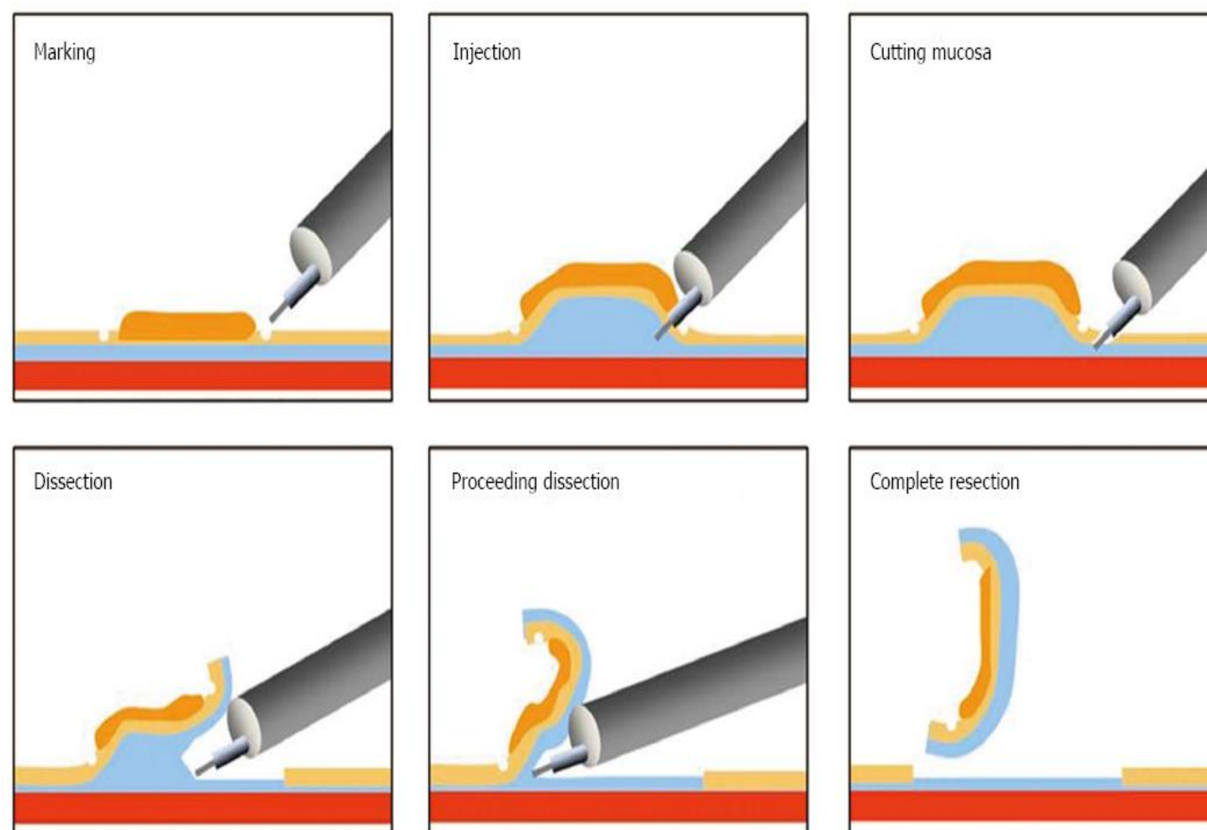
A data collection sheet was designed to obtain the relevant clinical information including baseline characteristics, tumor size, pathology of the tumor specimen, resection method used, margin involvement of specimens and any complications; this information was retrospectively reviewed. The recurrence of early rectal cancer and other associated factors were also analyzed. The study was approved by the Institutional Review Board of our institute.

COMPLETE RESECTION RATE

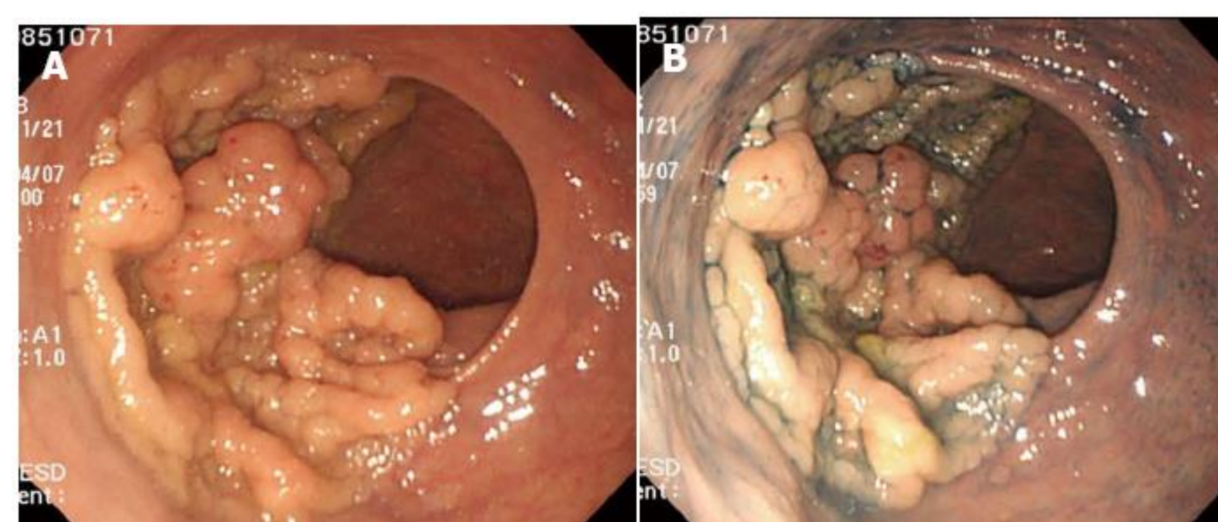
Thirty-two patients were included in the study. One was found to have positive resection margins on the endoscopic resection specimen, and two were found to have positive resection margins on the transanal excision specimen. Therefore, the number of complete resections carried out on the 16 endoscopic resection patients was 15 (93.8%) and the number of complete resections carried out on the 16 transanal excision patients was 14 (87.5%). No significant difference was found between the two groups with regard to complete resection (P = 0.544). The three patients with positive resection margins were excluded from further analysis.

ENDOSCOPIC RESECTION

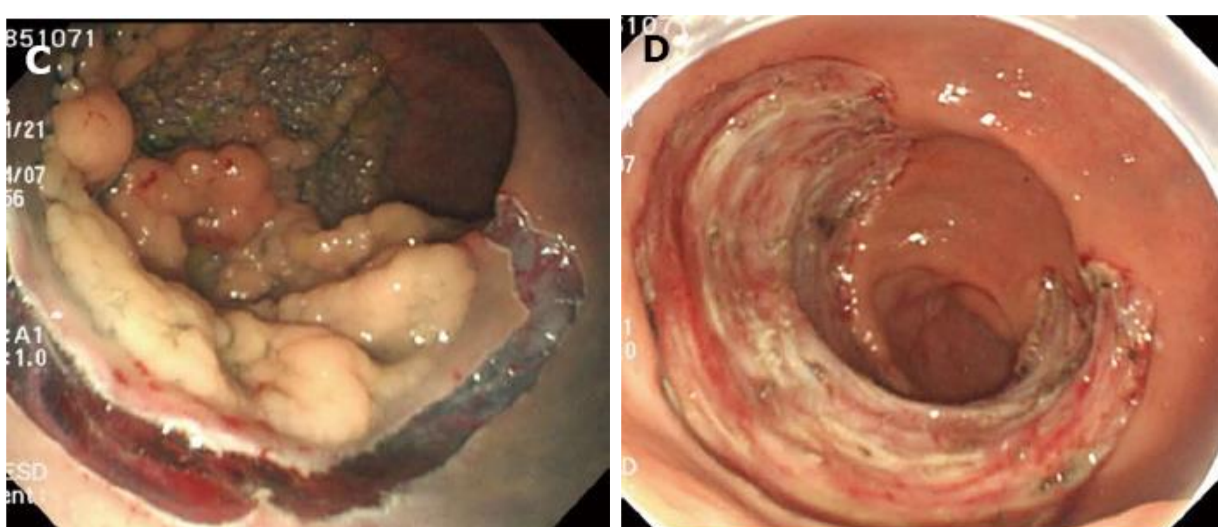
Endoscopic resection was performed after close observation and confirmation of the lesion. In cases of semi-pedunculated or pedunculated types, the mass was resected by polypectomy method with snaring. If the mass was a flat or excavated type, submucosal hypertonic saline mixed with epinephrine (1:10 000) was injected to make a mucosal bleb. The lesion was incised and dissected if larger than 3 cm (Endoscopic submucosal dissection, ESD). The resected specimens were washed in normal saline, fixed in 8% formaldehyde solution, and embedded in paraffin. Complete resection was defined as free of marginal invasion by cancer cells.



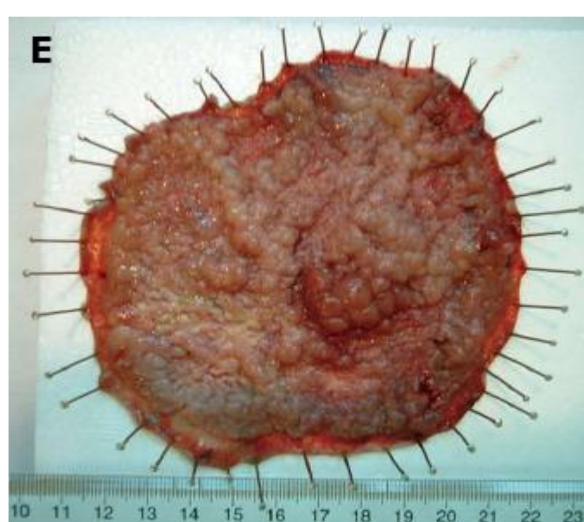
ESD



A – laterally spreading tumor; B – LST on chromoendoscopy;



C – initial dissection of the tumor; D – final result after ESD



E – Specimen - obtained clear lateral margin

TUMOR AND PATIENT CHARACTERISTICS

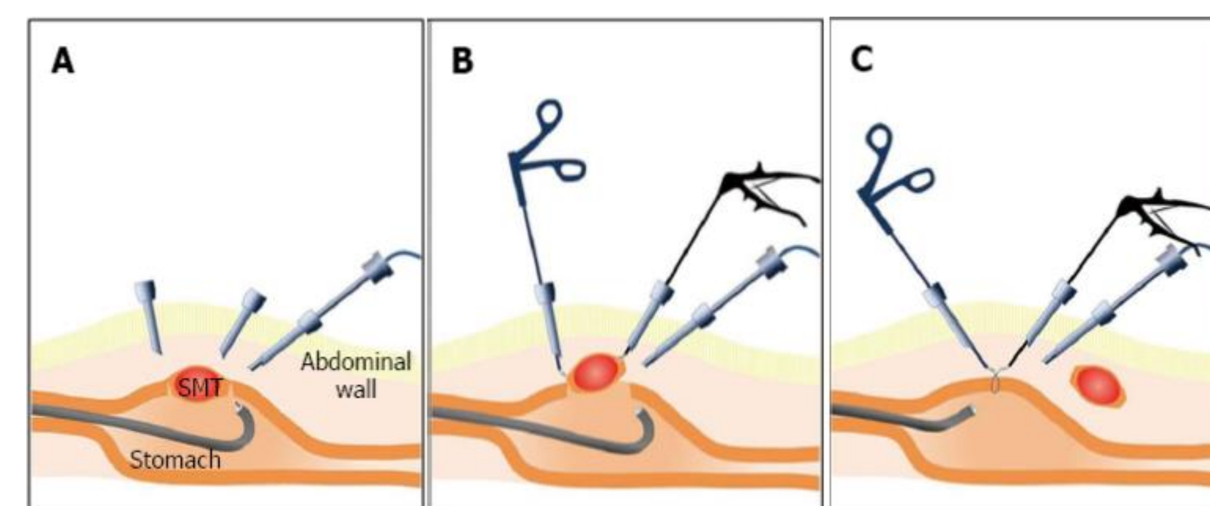
There were 7 males and 7 females in the transanal excision group. The mean age was 57.0 ± 12.7 years in the transanal excision group. There were 7 males and 8 females in the endoscopic resection group. The mean age was 59.8 ± 8.9 years in the endoscopic resection group. No significant difference was found between the two groups with regard to age and gender (P = 0.419 and P = 0.858, respectively). In the transanal excision group, the mean tumor size was 2.0 ± 1.0 cm and the mean tumor location from the anal verge was 5.2 ± 2.2 cm. In the endoscopic resection group, the mean tumor size was 1.8 ± 1.0 cm and the mean tumor location from the anal verge was 9.6 ± 6.5 cm. No significant difference with regard to tumor size and location was observed in either of the two groups. The histological diagnosis of the tumors in the transanal excision group was that of well differentiated adenocarcinoma in 13 and moderately differentiated adenocarcinoma in 1 patient. All tumors in the transanal excision group were confined to the rectal mucosa. The histological diagnosis of the tumors in the endoscopic resection group was that of well differentiated adenocarcinoma in all 15 patients. The tumor invasion depth in the endoscopic resection group was mucosa in 14 and sm1 (< 1000 µm) in 1 patient.

CLINICAL OUTCOMES

The median follow up period was 12.0 mo (6-70 mo) for the endoscopic resection group. There was one episode of delayed bleeding after the endoscopic resection which was managed successfully by endoscopic hemoclipping. This episode of delayed bleeding did not need a transfusion and the patient was hospitalized and treated for 2 d. There were no other serious complications in the two groups. The mean hospital-stay was 8.9 ± 2.7 d for the patients in the transanal excision group and 2.7 ± 1.1 d for the patients in the endoscopic resection group. The patients in the endoscopic resection group had a shorter hospital-stay duration compared to those in the transanal excision group (P = 0.001). During a median follow-up period of 21.5 mo, all 14 patients in the transanal local excision group were free of disease recurrence. In addition, during a median follow-up period 12.0 mo, all 15 patients in the endoscopic resection group were free of disease recurrence.

The complication rate was similar with advantage of the endscopic method over the transanal excision – perforation (n=1) and fecal incontinence (n=2) in the transanal group.

FUTURE PERSPECTIVE – LAPARO-ENDOSCOPIC SURGERY



A – endoscopic dissection of the SMT; B – laparoscopic resection of the SMT; C – laparoscpic suture of the gastric wall

CONCLUSION

The endoscopic resection was safe and effective treatment of early rectal cancers; the outcomes were comparable to patients undergoing a transanal excision. In addition, the endoscopic resection had the advantage of a shorter hospital recovery.

MULTIMODAL STRATEGIES FOR COLORECTAL LIVER METASTASES

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RESUME:

BACKGROUND: Colorectal cancer is one of the most significant malignant diseases as every year its frequency is increasing. Around 60% of the patients develop metastases, as half of them are liver limited disease. The liver mets are the main reason for death in patients with CRC. Primarily resectable are only 20-40% of the metastatic lesions. The evolution of definitions of resectability of colorectal liver metastases and the technical advances in liver surgery has led to increased number of potentially curative resection. **MATERIAL**: We present our data with 65 patients with colorectal liver metastases. **METHODS**: The modalities of treatment include chemotherapy and new surgical strategies, including portal vein embolization, ablation and staged hepatectomy. **RESULTS**: The application of the multimodal approach led to resectability of 32% from 45% of the potentially resectable metastases and 61% of the patient were radically treated. We report 41% 4-year survival rate and 35% 5-year survival rate. **CONCLUSION**: The multimodal approach has led to increased number of curative resections, higher rate of resectability and survival, without increased mortality and morbidity.

Three-dimensional (3D) ERUS and three-dimensional (3D)Contrast enhanced (CE) ERUS

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Background: The aim of this study was to compare the value of three-dimensional (3D) ERUS and three-dimensional (3D)Contrast enhanced (CE) ERUS in the preoperative staging of rectal neoplasms.

Methods: Fifty consecutive patients with rectal tumors were assessed by 3D ERUS and 3D CE- ERUS. ERUS data were obtained with a bifocal multiplane transducer (10 MHz) and processed on a 3D ultrasound workstation.

Results: The comparative accuracy of 3D ERUS and 3D CE- ERUS in predicting tumor invasion was 84% and 21%, respectively. Three-dimensional EUS and three-dimensional CE-ERUS enabled us to assess the lymph node status correctly 38 patients.

Conclusion: One advantage of both methods is the ability to obtain multiplanar images, which may be helpful for the planning of surgery in the future.

OUR EXPERIENCE IN LAPAROSCOPIC ADRENALECTOMY

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BACKGROUND:

Laparoscopic adrenalectomy (LA) has become the procedure of choice to treat functioning and non-functioning adrenal tumours. With improving experience, large adrenal tumours (> 5 cm) are being successfully tackled by laparoscopy.

MATERIALS AND METHODS:

Thiry-eight laparoscopic adrenalectomies was performed for adrenal lesions during the period 2006 to 2012 were reviewed.

RESULTS:

A total of 35 laparoscopic adrenalectomies were done in 32 patients. The mean tumour size was 5.03 cm (2-11 cm). Four patients had tumour size more than 8 cm. The lesions were localised on the right side in 17 patients and on the left side in 15 patients with bilateral tumours in 3 patients. Functioning tumours were present in 32 of the 46 patients. The average blood loss was 112 ml (range 20–400 ml) with the mean operating time being 144 min (range 45 to 270 min). Three patients underwent conversion to open procedure. Three of the 32 patients (9.52%) on final histology had malignant tumours.

CONCLUSION:

LA is safe and feasible for large adrenal lesions. Mere size should not be considered as a contraindication to laparoscopic approach in large adrenal masses. Graded approach, good preoperative assessment, team work and adherence to anatomical and surgical principles are the key to success.

BILIARY DRAINAGE IN MALIGNANT OBSTRUCTION

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ABSTRACT

In patients with obstructive jaundice, when the endoscopic approach fails to achieve biliary drainage, percutaneous cannulation and combined endoscopic/percutaneous endoprosthesis insertion could be performed simultaneously or in stages. Endoscopic retrograde biliary drainage (ERBD) and percutaneous transhepatic biliary drainage (PTBD) are the two main non-surgical treatment options for obstructive jaundice in patients with HCC. ERBD is usually the first-line treatment because of its low hemorrhage risk. Some authors have reported successful drainage rates ranges from 72 to 100%. Mean stent patency time and mean survival range from 1.0 to 15.9 and 2.8 to 12.3 months, respectively. PTBD is often an important second-line treatment when ERBD is impossible. With regard to materials, metallic stents offer the benefit of longer patency than plastic stents. The dominant effect of biliary drainage suggests that successful jaundice therapy could enhance anti-cancer treatment by increasing life expectancy, decreasing mortality, or both. Traditionally, surgical techniques were used, but in the last 20 years the availability of both endoscopic and interventional radiological procedures has increased. We review the literature and make a review on the subject.

CONCLUSION: The technical success of the procedure depends on the experience of the team, performing the procedure. It can be as high as nearly 100%. Clinical efficacy is usually lower but still over 90%. When endoscopic drainage alone fails, a combined percutaneous/endoscopic procedure should only be performed if it can be carried out simultaneously.

ADRENAL ONCOCYTOMA IN CHILDREN - CASE REPORT

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ABSTRACT

Adrenal oncocytomas are usually nonfunctional and hence incidentally detected. Most of these adrenal neoplasms are benign. Functioning adrenocortical oncocytomas are extremely rare and most reported patients are between 40 and 60 years of age. We found in the literature that only several cases of functioning adrenocortical oncocytomas have been reported in childhood. We report a case of functioning adrenocortical oncocytoma in a 9 years old female child presenting with virilization. She presented with deepening of the voice and excessive hair growth, and elevation of plasma testosterone and dehydroepiandrosterone sulfate. We presented a discussion of this case, successfully managed by laparoscopic surgery.

ENDOSCOPIC RADICAL TREATMENT IN EARLY RECTAL CANCER

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BACKGROUND: The standard radical treatment for early rectal cancer includes a removal of the tumor with total mesorectal excision. There are lots of new techniques for endoscopic treatment which could shift the strategy for obtaining the postoperative results.
MATERIAL AND METHOD: We report our radical endoscopic treatment of early rectal carcinoma by endoscopic submucosal dissection. Forty five patients with early-stage rectal cancer (carcinoma in situ, T1sm1 and T1sm2) were enrolled. All of them were staged by 3-D endorectal ultrasound. All of the tumors were endoscopically removed. We observed and report only postoperative results. No oncological results were report.
RESULTS: The mean lesion size was 31.0 mm (range 19-82 mm), and the mean operating time was 86 minutes (range 48-131 minutes). Forty two lesions were resected en bloc with tumor-free margins – 92% successful rate (42/45). Three lesions were understaged or their localization in the rectum was improper for endoscopic treatment As complications we observed perforation of the rectum, occurred in 1 patient (4%), who was treated conservatively, and major bleeding, occurred in 4 patients (10%). The bleeding was stopped by endoscopic hemostasis. No systematic complications were observed. No mortality was observed.
CONCLUSION: The ESD procedure for early-stage rectal cancers is feasible and safe. The postoperative results are significantly better in comparison of radical surgical treatment. The perioperative morbidity is different as type and the postoperative period is shorter.

MULTIMODAL STRATEGIES FOR COLORECTAL LIVER METASTASES

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