ABSTRACTS OF THE SUBMITTED PUBLICATIONS

1. SURVEILLANCE, CONTROL AND MANAGEMENT OF INFECTIONS IN INTENSIVE CARE UNITS IN SOUTHERN EUROPE, TURKEY AND IRAN–A PROSPECTIVE MULTICENTER POINT PREVALENCE STUDY

Objective: We aimed to compare the features of intensive care units (ICUs), their antimicrobial resistance patterns, infection control policies, and distribution of infectious diseases from central Europe to Mid-West Asia.

Methods; A cross-sectional point prevalence study was performed in 88 ICUs from 12 countries. Characteristics of ICUs, patient and antibiotic therapy data were collected with a standard form by infectious diseases specialists.Results: Out of 749, 305 patients at least with one infectious disease were assessed and 254 patients were reported to have coexistent medical problems. When primary infectious diseases diagnoses of the patients were evaluated, 69 had community-acquired, 61 had healthcare-associated, and 176 had hospital-acquired infections. Pneumonia was the most frequent ICU infection seen in half of the patients

2. INTRA- AND POSTOPERATIVE ANALGESIA IN PATIENTS SUBJECTED TO RADICAL PROSTATECTOMY AND TOTAL CYSTECTOMY

OBJECTIVES: Radical prostatectomy and total cystectomy, combined with extended pelvic lymph node dissection, are some of the most extensive, traumatic and time consuming surgical procedures in Urology. The main objective of the present study was to evaluate the adequacy of the continuous, intra- and postoperative epidural analgesia in patients subjected to such sophisticated pelvic surgery.

MATERIAL & METHODS: The technique was applied to 120 patients. This epidural infusion comprised: Levobupivacaine 0.2% + Sufentanil 1 ug /ml (40 patients); Levobupivacaine 0.2% + Fentanyl 2 ug /ml (40 patients) or Ropivacaine 0.25% + Fentanyl 2 mg /ml (40 patients). Routine premedication, induction, and intubation.

RESULTS: Al surgical procedures were performed without serious complications. Within the first 30 - 60 min, 30-40% decrease of the systemic blood pressure was registered in some of the patients, which required reduction of the epidural infusion and increased rehydration of the patient. Postoperatively, no hemodynamic complications, or any other complications, directly related to the epidural catheterization, were registered. Al patients reported early recovery of the intestinal peristalsis. They rated their analgesia as very good.

CONCLUSIONS: The described technique is suitable particularly for this cohort of patients with respect to the minimal overload with anaesthetic drugs, adequate analgesia, and early recovery of the peristalsis and the physical activity.

3. FEMOROPOPLITEAL BYPASS PROCEDURE UNDER FEMORAL-SCIATIC NERVE BLOCK IN A PATIENT WITH ABNORMAL COAGULATION PROFILE

Backgrounds and aims: Regional anesthesia may help to reduce the risk for perioperative mortality in patientswith severe cardiac and lung diseases.We present the case of a 77 year old man, cigarette smoker, with a history of COPD, severe ischemic heart disease and diabetes. He suffered a myocardial infarction a month ago. The patient came to our hospital with severe pain in his right leg. After an emergency procedure - Fogarty-thrombectomia under local anesthesia, the surgical team discussed with us this patient. He had a critical chronic limb ischemia. The patient was on anticoagulant therapy with clopidogrel and aspirin at home and heparin and pentoxifylline infusion for the last 24 hours after admition in the hospital. The both teams decided that the best option for this patient would be a femoropopliteal bypass with saphenous graft under regional anesthesia.
Methods: We performed ultrasound guided sciatic and femoral nerve block. The patient was given single shot technic 25ml 0,25% Bupivacaine for sciatic nerve block and 15 ml 0,25% Bupivacaine for femoral nerve block. Concomitant we performed a sedation with Midasolam 2 mg, Fentanyl 150mcg and Propofol infusion to achieve Ramsey score 4-
Results: The duration of the surgery was 5 hours with a good result. The patient was still free of pain 10 hours later. One month later the patient was admitted to our ICU and died of mesenteric thrombosis. There were no any intra- or post-operative complications.

Conclusions: We suggest this approach in such a patient, because it provides maximum safety and surgical comfort, despite the risk of hematoma.

4. LAPAROSCOPIC MANAGEMENT OF CONGENITAL MESOBLASTIC NEPHROMA- CASE REPORT

Congenital mesoblastic nephroma (CMN) also called leimyomatous harmartoma is a mesenchymal renal tumor.. CMN is the most common solid tumor in newborns and young infants which is basically benign. Pathologically there are three variants of CMN - classic (conventional), cellular (which is more aggressive) and mixed. In a complete surgical removal of the tumor (nephrectomy), the literature results are excellent.

5. NEUROLEPTIC MALIGNANT SYNDROME – URGENT, INTERDISCIPLINARY CONDITION

Summary: Neuroleptic Malignant Syndrome (NMS) is an uncommon, yet life threatening,condition that is result of treatment with antipsychotic and neuroleptic drugs.The condition is characterized with delirium, muscle rigidity, fever and autonomic nervous system dysfunction. The incidence is variable and recently the frequency is much lower. The pathogenesis behind the cause of NMS is only speculative and has not yet been clearly defined. The diagnosis most commonly is based on clinical symptoms and laboratory tests. Elevated serum creatine kinase levels are most commonly seen and are typically greater than 1,000 U/I but can reach up to 100,000 U/I in severe NMS. The management consists mainly of stopping the suspected causative agents, forced diuresis and supportive therapy.

6. INTRAOPERATIVE AND POSTOPERATIVE PAIN RELIEF IN PATIENTS WITH TOTAL CYSTOPROSTATECTOMY

Summary: The patients, presented for radical cystoprostatectomy are often with severe concomitant disease, ASA III-IV. That’s why the anesthesia is a real challenge for the anesthesiologists. It is necessary an adequate intra- and postoperative pain relief to be present. The authors describe a continuous epidural technique for combined anesthesia and pain relief postoperatively, the dosage of the anesthetics used, time frame and results.

7. **INTRAOPERATIVE NEUROMONITORING AND AWAKE CRANIOTOMY - IS IT PRACTICABLE?**

Abstract: It is a historical trend in Europe neurosurgeons and their patient to refuse awake craniotomy. Awake craniotomy tide indications, severe complications and the specific complexity of the technical implementation could cause deny.

8. **ULTRASOUND - GUIDED PERIPHERAL NERVE BLOCKS, A SAFETY METHOD OF ANESTHESIA IN PATIENTS WITH SEPSIS WITH AN INITIAL ACUTE RESPIRATORY FAILURE - PRESENTATION OF TWO CLINICAL CASES**

Background and aims: Anesthetic management of patients with severe sepsis is a great challenge. Systemic inflammation and acute organ dysfunction in response to infection is a major problem, especially respiratory failure and hemodynamic instability. Avoidance of lung injury during mechanical ventilation is possible with peripheral nerve blocks.
Clinical case 1: We present a 73 years old hemodialysis male patient with sepsis. He had infectious complication of aneurysm formation of A-V fistula. The patient was hypoxic – SpO 2 86-88%, presence of tachypnea, RR-150/75, HR-125/min, Temp -38 0 C, coagulation abnormalities - INR 1, 58 (clopidogrel intake), elevated CRP and WBC.The patient was for emergency procedures of incision, drainage and ligation of A-V fistula. We perform supraclavicular brachial plexus block + sedation Clinical case 2: We present a 61 year woman with sepsis, past medical history of diabetes, COPD, endometrial cancer. She was with clinical presentation of necrotizing fasciitis of upper extremity.
Methods: We perform ultrasound guided supraclavicular brachial plexus block –" in plane" technique, 30 ml/ 25 ml Ropivacaine 0,5% in moderate sedated patients.
Results: During the operation the patients were conscious, 4emodynamically and respiratory stable, with oxygen supply with mask, excellent intraoperative and postoperative pain control.
Conclusions: We think that ultrasound guided peripheral nerve blocks are safe and effective alternatives for septic patients with/or coagulation abnormalities.

9. CATHETER-ASSOCIATED BLOODSTREAM INFECTIONS IN ICU. CLINICAL EXPERIENCE.

Abstract: Central line-associated bloodstream infections (CLABSIs), also known as catheter-associated hematogenously disseminated infections, are laboratory-confirmed infections that develop at least 48 hours after placement of a central venous catheter and are not linked to another infectious source. These infections are common in intensive care units and have a high mortality rate. To prevent CLABSIs, it is crucial to implement and follow clinical protocols, provide training, and utilize algorithms. The aim of this study is to monitor, evaluate, and investigate the incidence of CLABSIs and to emphasize the importance of following protocols and providing proper training for prevention.

10. ACUTE RESPIRATORY DISTRESS SYNDROME AFTER CONIZATION: A CASE REPORTIO

Introduction: Conization of the cervix is a surgical procedure used to treat or diagnose cervical dysplasia. The definition is: excision of a cone-shaped or cylindrical wedge from the cervix uteri that includes the transformation zone and all of or a portion of the endocervical canal. Conization can be performed with a scalpel (cold-knife conization), laser or electrosurgical loop. Complications are rare.

Materials and Methods: On the same day after successful conization due to cervical carcinoma in situ, a 37-year-old woman presented clinical manifestation of acute respiratory failure. She was admitted to the Intensive Care Unit in Dobrich Hospital and an endotracheal intubation was performed. After consultation with the Regional anesthesia consultant and intensive care, a decision was taken to admit the patient to the intensive care unit in the University Hospital `St. Marina` Varna. The patient was transported there, on the next day.

Results: Full examination was performed and the diagnosis was sepsis with ARDS as a complication. The patient was treated with parenteral Meropenem, Metronidazole, Azithromycin, Fluconazole, intravenous fluids, inotropic agents, and heparin. Muscle relaxants and Midazolam were used for synchronization between the ventilator and the patient and achieving better oxygenation. From the vaginal secretion Candida glabrata was isolated. On the eight day after hospitalization a tracheostomy was

performed. Gradually the condition of the patient showed improvement and she recovered completely and left the clinic after 18 days.

Conclusion: Conization complications are intraoperative or post-operative bleeding, cervical stenosis, cervical insufficiency, infection and sepsis. Generally they are relatively rare. Sepsis and extrapelvic infections are extremely rare complications of cervical conization. Most complications are expected after conization performed with a scalpel rather than with a laser.

11. THE ROLE OF NEUTROPHIL GELATINASE-ASSOCIATED LIPOCALIN AS A MARKER OF ACUTE KIDNEY INJURY / ACUTE RENAL FAILURE AND DEATH IN SEPTIC PATIENTS.

Abstract: Sepsis is a life-threatening organ dysfunction caused by dysregulated host response to infection. Sepsis is a common and increasingly frequent medical problem that consumes huge amounts of resources. Mortality rates remain high, and the long-term effects severe, including acute renal failure. The purpose of this study was to assess the ability of plasma neutrophil gelatinase-associated lipocalin (pNGAL) to predict AKI / acute renal failure and death in septic patients.

12. PHARMACOKINETIC AND PHARMACODYNAMIC CHANGES IN SEPSIS. ANTIBIOTIC TREATMENT IN SEPSIS - WHERE ARE WE GOING WRONG? LITERATURE REVIEW

Summary: The pharmacokinetic and pharmacodynamic profile of drugs in critically ill patients is seriously altered. The septic patient is characterized by a hyperdynamic type of circulation, which can increase the renal clearance of hydrophilic ABs up to three times above normal and we observe an unsatisfactory clinical response in a patient with an infection sensitive to the administered antibiotic. Patients with severe sepsis have serious pathophysiological abnormalities that lead to variable pharmacokinetics of the administered drugs: increased drug clearance, impaired volume of distribution, abnormal fluid balance, changes in protein binding.

13. THE ROLE OF PROCALCITONIN AS A BIOMARKER IN RISK ASSESSMENT, A PROGNOSTIC TOOL AND A GUIDE FOR ANTIBIOTIC TREATMENT IN PATIENTS WITH COVID-19.

Abstract: Coronavirus disease 2019 (COVID-19) caused by severe acute

respiratory syndrome coronavirus 2 (SARS-CoV-2) has spread around the world.

A differentiation between simple viral COVID-19 pneumonia and secondary

superimposed bacterial infection can be challenging. In patients with elevated C- reactive protein (CRP) on admission physicians often decide to prescribe combination of antibiotics. However, overuse of anti-infective therapy in the pandemic should be avoided to prevent increasing antimicrobial resistance.

Procalcitonin testing (PCT) seems to be an useful biomarker in identifying

COVID-19 patients with super-added bacterial infection, and supports antibiotic treatment in COVID-19 patients. In spite of the several limitations, PCT seems to appear as a promising prognostic biomarker in COVID-19 disease. Initially elevated PCT levels may be used as a prompt prognosticator of critical ilness,

deteriorating clinical picture, and even mortality in COVID-19. The biomarker can also serve as a risk stratification tool for intensive resource allocation and aggressive therapeutics in conjunction with clinical details and other biomarkers, in an already over occupied medical centers.

14. PROGNOSTIC AND DIAGNOSTIC ROLES OF SERUM PROCALCITONIN, C-REACTIVE PROTEIN AND INTERLEUKIN-6 LEVELS IN PATIENT WITH SEPSIS OR SEPTIC SHOCK.

Abstract: Sepsis is a life-threatening organ dysfunction caused by an infection-induced dysregulated immune response of the body. It is a frequent complication in hospitalized patients and a major problem in intensive care units. A recent studies reported about 30% mortality rate in patients with sepsis,50 % in severe sepsis and 80 % in patients in septic shock. Our study was designed with the objective of evaluating the efficacy of procalcitonin, C-reactive protein and interleukin-6 as a diagnostic and prognostic tools in clinical assessment and risk stratification for mortality

and deterioration to organ dysfunction in patients with sepsis or septic shock. Taking this new biomarkers into routine use in the daily clinical practice can optimize early diagnosis, treatment, prognosis and social-economic impact in septic patients.

15. MANAGEMENT OF UNPLANNED INTRAOPERATIVE PENILE ERECTION WITH SALBUTAMOL AEROSOL, CASE REPORT

ABSTRACT:Penile erection is a rare but unpleasant complication of endoscopic urological surgery. The mechanism is not fully understood, but erection can significantly complicate surgical intervention. Various techniques have been described for the treatment and prevention of erection during anesthesia, each with varying success. Due to the complexity of the mechanism of manifestation of the condition, none of them are completely effective or any side effects. Inhaled beta-2 agonist can result in successful penile detumescence without severe adverse side effects.

16.ANESTHETIC CONSIDERATIONS FOR ROBOTIC SURGERY

Abstract: Recently, demand for minimally invasive surgery has increased greatly. As a result, robot-assisted techniques have gained in popularity. Over the past decade, robot-assisted surgery has become widespread in a variety of operations. The aim of the study is to familiarize, remind and highlight the changes that occur during laparoscopy to anesthesiology and intensive care clinicians, to comment on some key points, with a view to optimise the anesthetic approach and reduce complications in the perioperative period.

17.APPLICATION OF DEXAMETHASONE AS AN ADJUVANT TO THE LOCAL ANESTHETIC IN THE PERFORMANCE OF A US-GUIDED FEMORAL BLOCK FOR POSTOPERATIVE ANALGESIA ON PATIENTS AFTER TOTAL KNEE JOINT REPLACEMENT.

Summary: Background and Objectives:The article discusses the use of dexamethasone as an adjuvant to local anesthetic solution for US-guided femoral nerve block in patients after total knee joint replacement. A literature review on the clinical use of other adjuvants is also presented.

Design: This was a clinical prospective randomized study. Objective: To investigate the effect of Dexamethasone adjuvant on the local anesthetic

solution when performing a US-guided femoral block in patients after total knee joint replacement.

Methods: Study included 53 patientes, randomized into two groups: Group 1: FNB single shot + constant infusion through a perineural catheter 15 ml bolus (ropivacaine 0.5% / levobupivacaine 0.375%) with a subsequent infusion of 5-9 ml per hour.Group 2: FNB- "single shot" 20 ml bolus (ropivacaine 0.5% levobupivacaine 0.375%) +/- Dexamethasone 4 mg.Group 1: FNB single shot + constant infusion through perineural catheter, 20 patients.Group 2: FNB "single shot" included 33 patients. In this group, 2 subgroups were formed: patients with FNB - single shot with Chirocain – 10 patients; patients with FNB "single shot" with Ropivacaine - 23patients. Of these, 15 patients were fasted with FNB "single shot" with Ropivacaine + Dexamethasone 4 mg, 8 patients with pure Ropivacaine. 2 Evaluation of effective control of pain relief symptoms on 2nd, 4th, 6th, 12th,18th, 24th, and 36th hours postoperatively according to Visual Analogue Scale (VAS).

Results: No statistically significant difference in VAS scores was observed between the two groups in the 2nd, 6th, 12th, 18th and 36th hours. Such was found only in the 24th hour. We did not detect statistically significant benefits of this adjuvant. We do not have clinically registered ADRs. We have not established a correlation between these occurrences and the use of dexamethasone.

Conclusions: Although our results correlate with authors who refute the positive of dexamethasone as an adjuvant to the PNB, we believe, based on clinical observation data, that it actually attenuated reversible hyperalgesia (patients did not report abruptly, acute, sudden onset of pain), therefore prolongation of the analgesic effect was observed until the 18th, 20th postoperative hour.