

**МЕДИЦИНСКИ УНИВЕРСИТЕТ
„ПРОФ. Д-Р П. СТОЯНОВ“ – ВАРНА
КАТЕДРА ПО ВЪТРЕШНИ БОЛЕСТИ
УНС ПО ГАСТРОЕНТЕРОЛОГИЯ, ХЕПАТОЛОГИЯ
И ХРАНЕНЕ**

**Д-Р ТАНЯ НИКОЛОВА КИРИЛОВА-
КРЪСТЕВА**

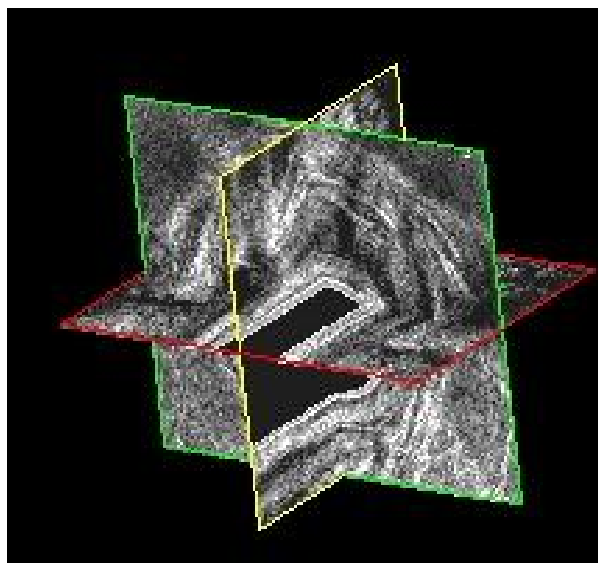
**КЛИНИЧНА СТОЙНОСТ НА
ЕНДОСОНОГРАФИЯТА ПРИ ДИАГНОСТИКАТА И
СТАДИРАНЕТО НА РЕКТАЛНИЯ КАРЦИНОМ**

А В Т О Р Е Ф Е Р А Т

на дисертационен труд за присъждане на образователна и научна
степен

„доктор“

Научна специалност
„Гастроентерология“



МЕДИЦИНСКИ УНИВЕРСИТЕТ „ПРОФ. Д-Р П. СТОЯНОВ“ – ВАРНА
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УНС ПО ГАСТРОЕНТЕРОЛОГИЯ, ХЕПАТОЛОГИЯ И ХРАНЕНЕ

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Научна специалност:

03.01.14 „Гастроентерология“

Научни ръководители:

Проф. Искрен Коцев, д.м.н.

Проф. Д-р Валентин Игнатов, д.м.

Официални рецензенти:

Проф. д-р Симеон Стойнов, д.м.н.

Проф. д-р Людмила Танова Танкова, д.м.н.

Варна
2014

Дисертационният труд съдържа 131 стандартни страници, 63 фигури и 35 таблици. Цитирани са 219 литературни източника, от които 38 български и 181 чуждестранни.

Дисертационния труд е обсъден и предложен за официална защита на катедрен съвет на Катедрата по Вътрешни болести УНС Гастроентерология, хепатология и хранене, Факултет по Медицина при МУ „Проф. д-р Параскев Стоянов” – Варна

Научна специалност:
„Гастроентерология”

Публичната защита ще се проведе на от

..... Аудитория:

1.	5	.
2.	7	.
3.	9	.
4.	9	.
4.1.	13	.
4.2.	()	13	.
4.3.	(2D, 3D, -)	14	.
4.4.	-	22	.
4.5.	24	.
4.6.	25	.
5.	26	.
6.	54	.
7.	59	.
8.	59	.

1.

-

-

3D -

2D -

- E

-

2D- -

3D- -

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(WHO) -

10 -

-

UICC - International Union Against Cancer

NBI – Narrow Band Imaging ()

FDG - 2-18F- -2- – D-

2.

()

(1,2,6,9,178).

(2,9)

(2).

(2,9,10).

(1,9).

(6).

(9).

30%

(9).

(9).

, (1,9,10).

(), ,

, (,). -

(3D)

(2D)

(2,93,163). 3D-

offline

(163,175).

- 3D

2D

. 3D

(3).

й

(9,20,177).

(165).

(156,180,193,196,203).

3.

:

:

1. 3D-

2. -

3. 2D- , 3D- -

4. 3D- -

5.

, ,

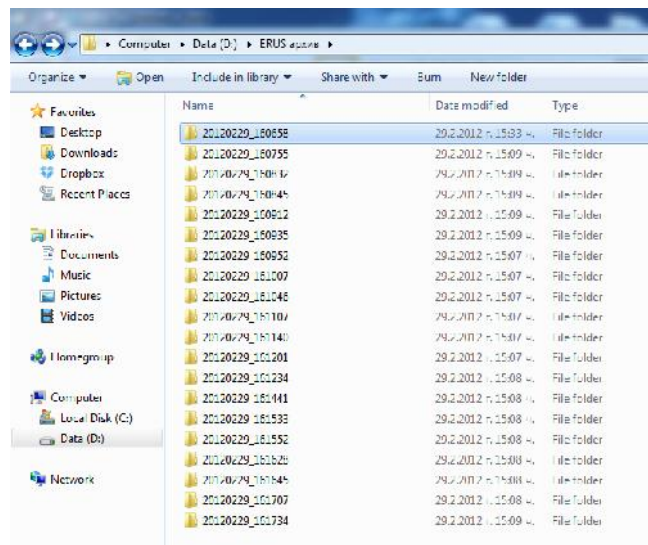
4.

:

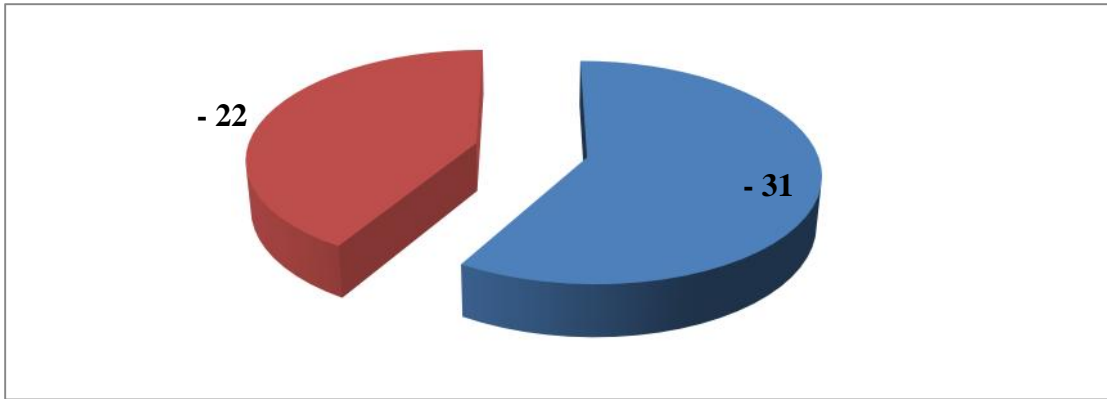
3 2011-2013

” “ ,

53 , - 22 31 .



. 10.



. 11.

, , .
 -
 (.12). ()
 (.13); ()
 (.15).
 ASA (.16).



. 12.

7-

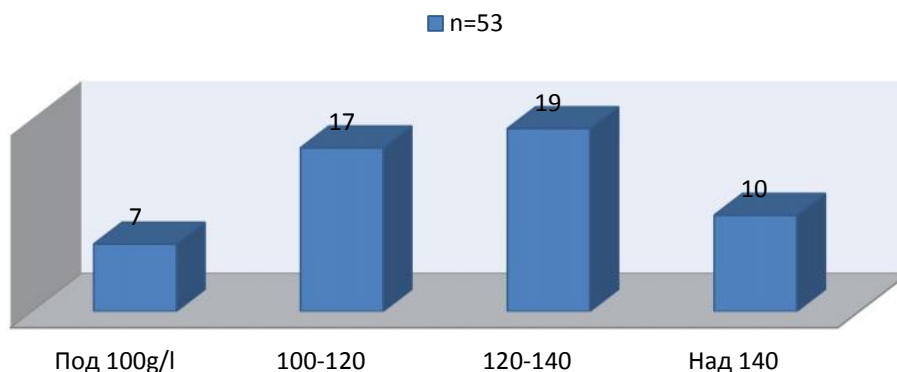
Симптоми при пациенти с рак на ректума



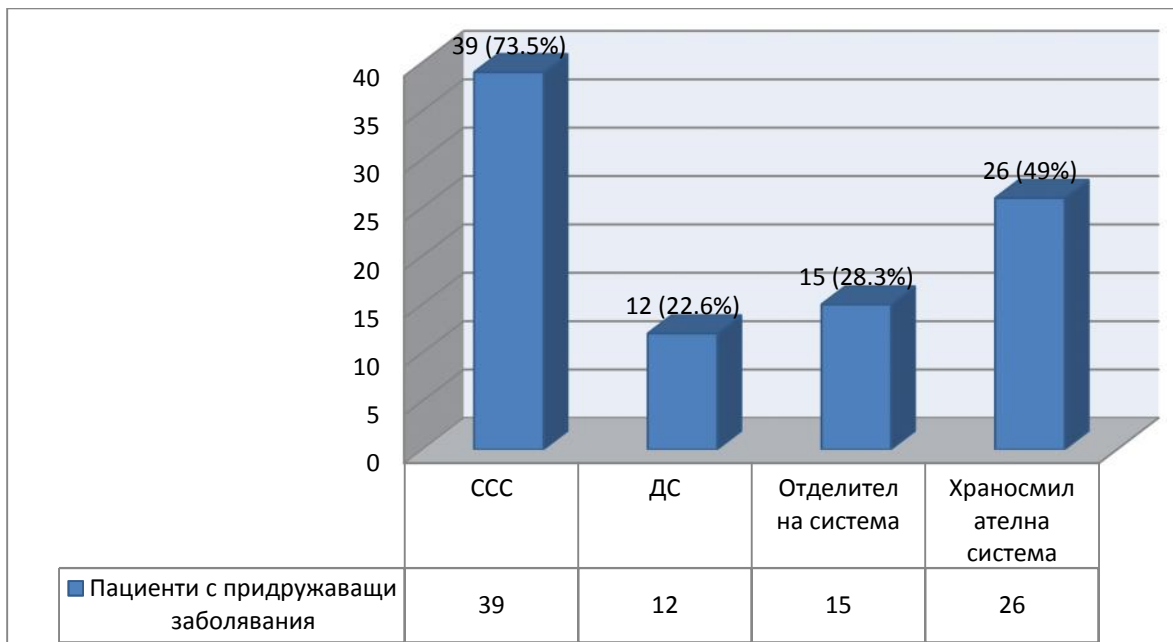
. 13.

(9.4%)

Разпределение на пациентите с аденокарциноми на ректума според хемоглобин



. 14.



. 15.



. 16.

ASA

ASA – ASA III – 24 (45.2%).

:

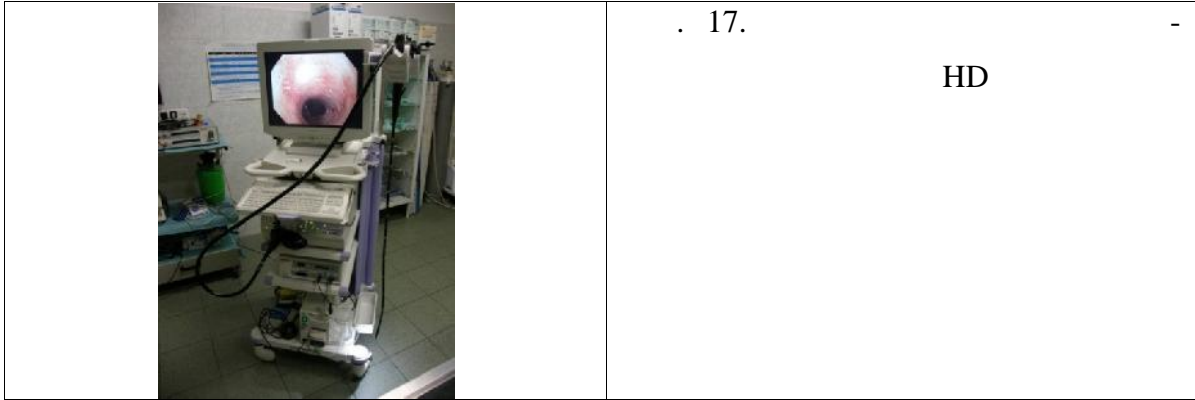
4.1.

. - ,
 - .
 .
 , . -
 : /1/
 ; /2/ ; /3/ ; /4/ ; /5/ .
 ,
 ().
 - , , , ,
 , , ; ,
 .
 ,
 - , , - , -
 .
 - .

4.2.

()

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 , ,
 . 53 ,
 - , ,
 , / ,
 , .



Olympus Exera II, ,

– 180 , , .

linea anorectalis,

“ – ” .

4.3. (2D, 3D, -)

3-D , –

2-D 3-D . 7

TNM

T N,

– u (uT uN).

Bruel & Kjaer Pro Focus UltraView 800 :

Imaging Modes-B, M, Color Doppler, Power Doppler, Pulse Wave Doppler, Tissue Harmonic, Contrast Imaging :2052, 8820 ; 8814. 2052

360 ,

3D

6 , 0.25 2D - 240

3D

()

10 linea anocutanea,

50

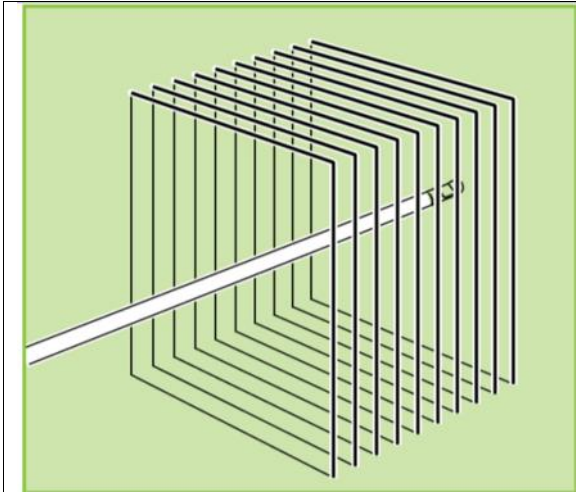


18.

(2052)

angle 360°.

: Frequency Range 6-16 MHz Focal range (typical) Up to 50 mm Sector



. 19.

2050.

17 linea anorectalis.

,
 – ()
), ()
 () (.20). 5

muscularis mucosae.

muscularis propria.

, ().

Beynon

: uT0 –

; uT1 –

; uT2 –

; uT3 –

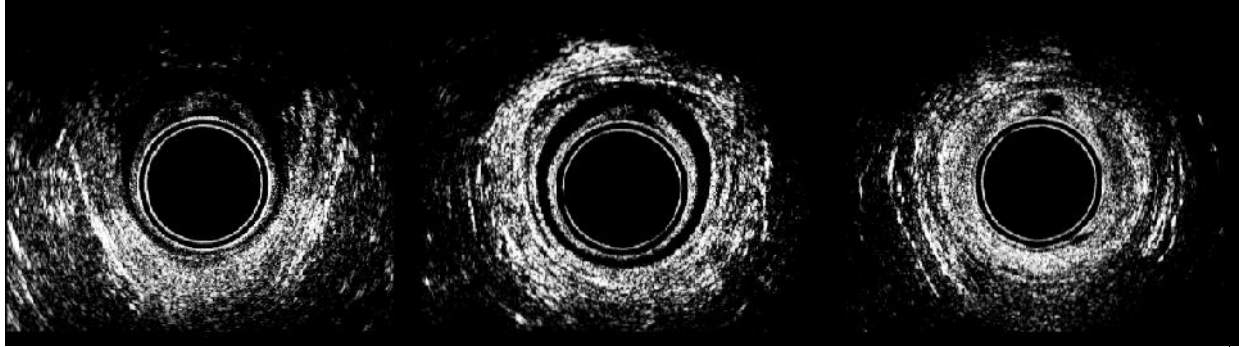
; uT4 –

(.21-30).

, 5

e 2D ,

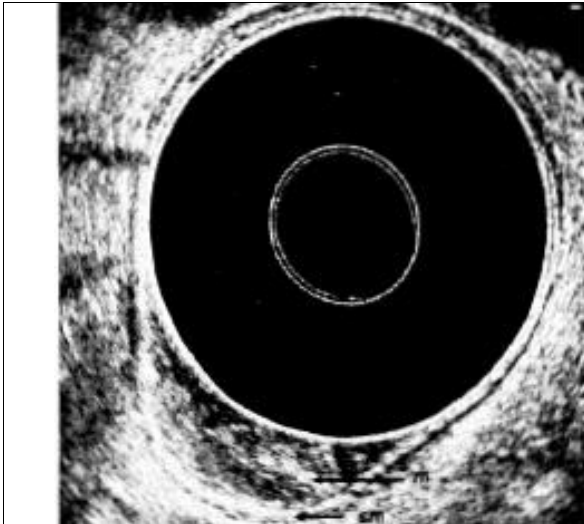
(SonoVue Bracco). 12-15 30-40



. 20.

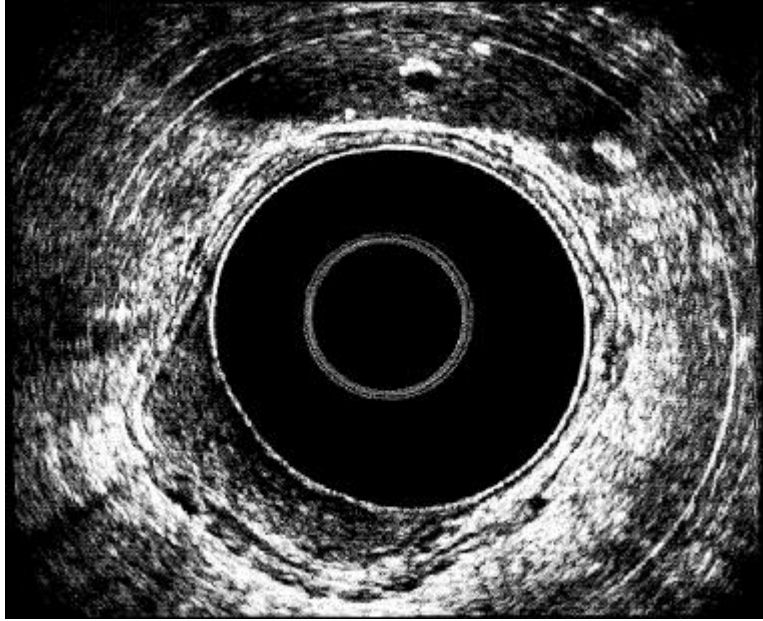
()

: (); ();



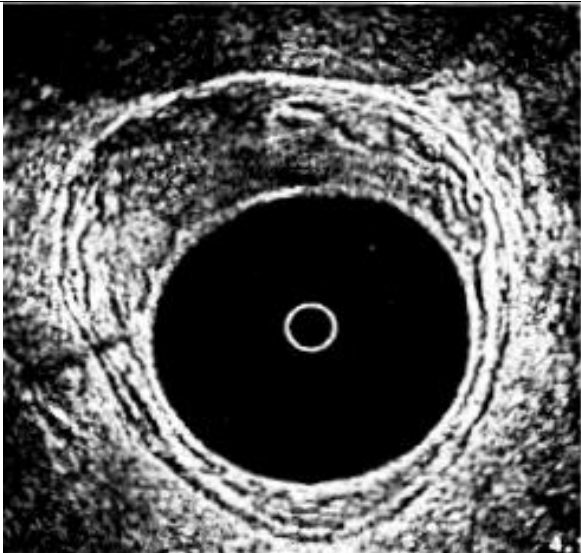
. 21. 2D

T0



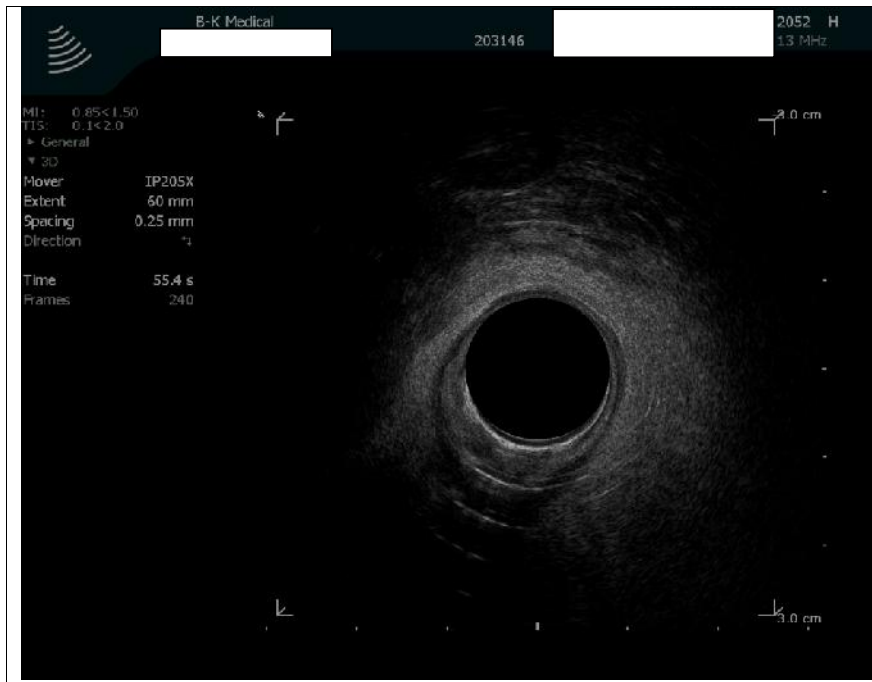
. 22. 2D

T1



. 23. 2D

T2



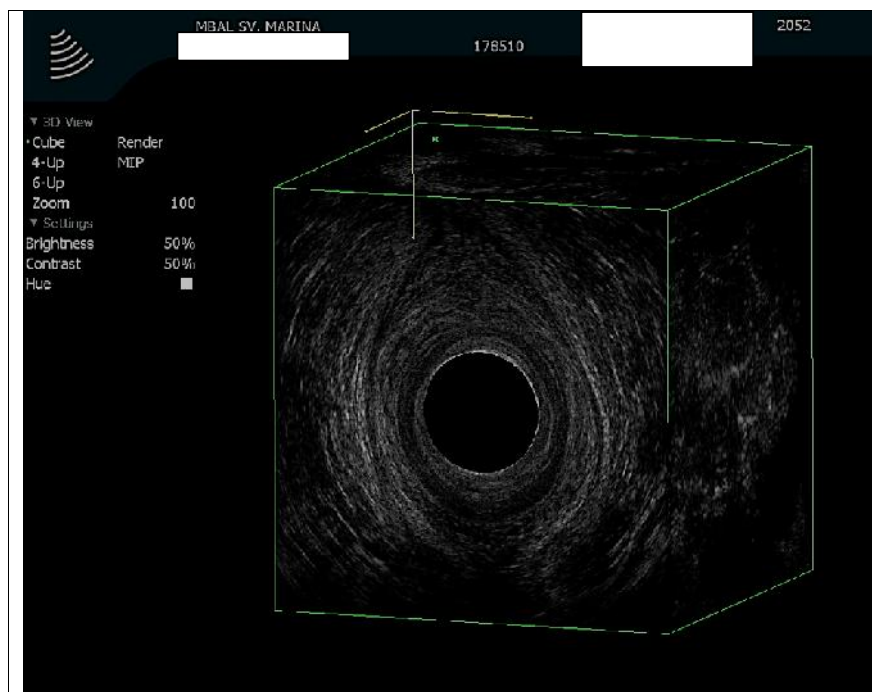
.24.

2D

2,

,

.



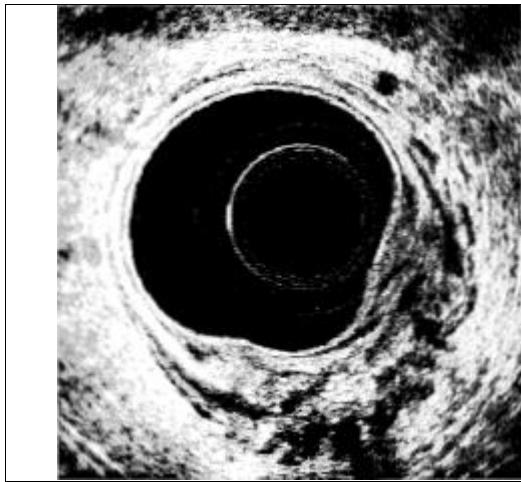
.

25.

3-D

2

.

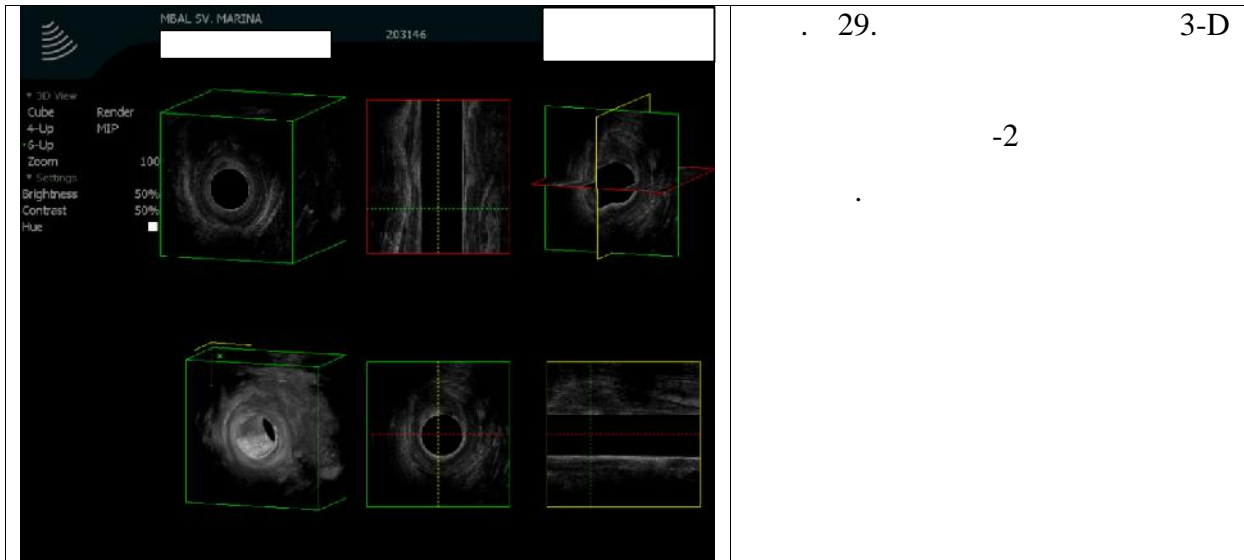
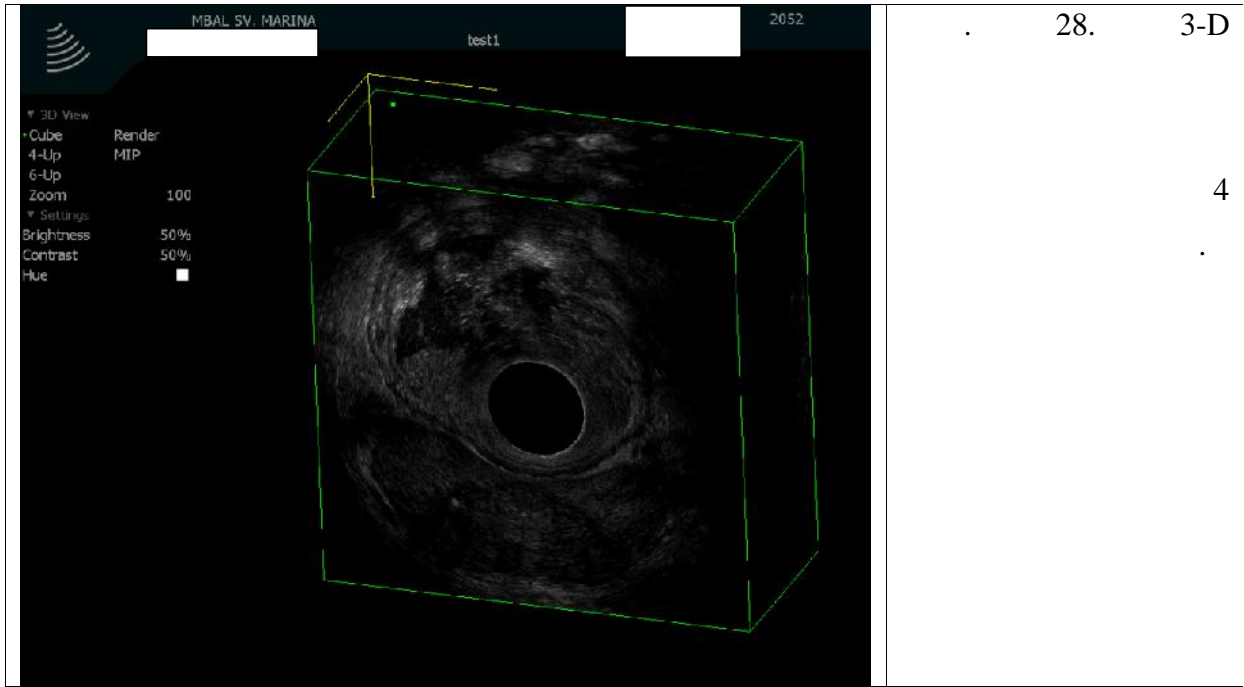


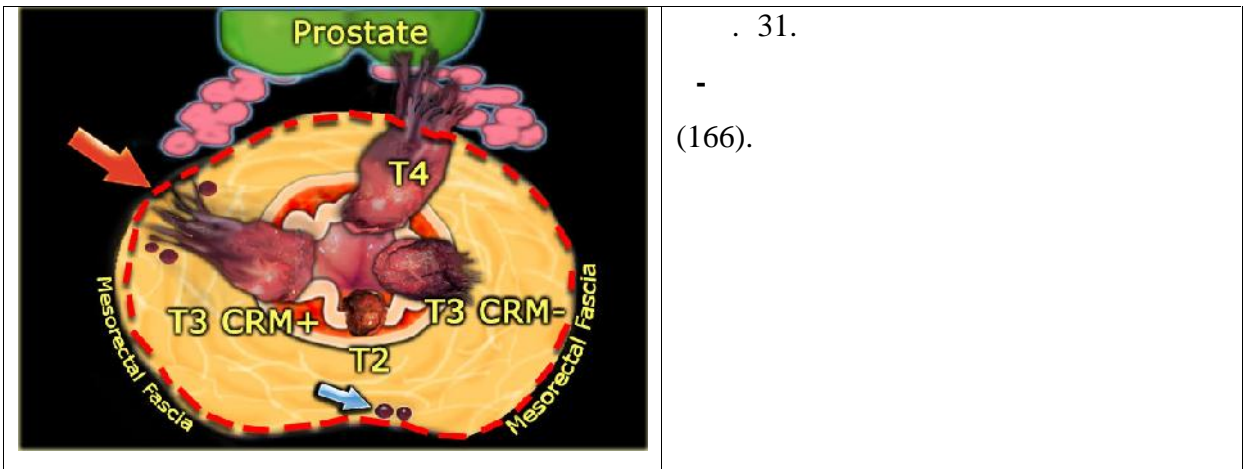
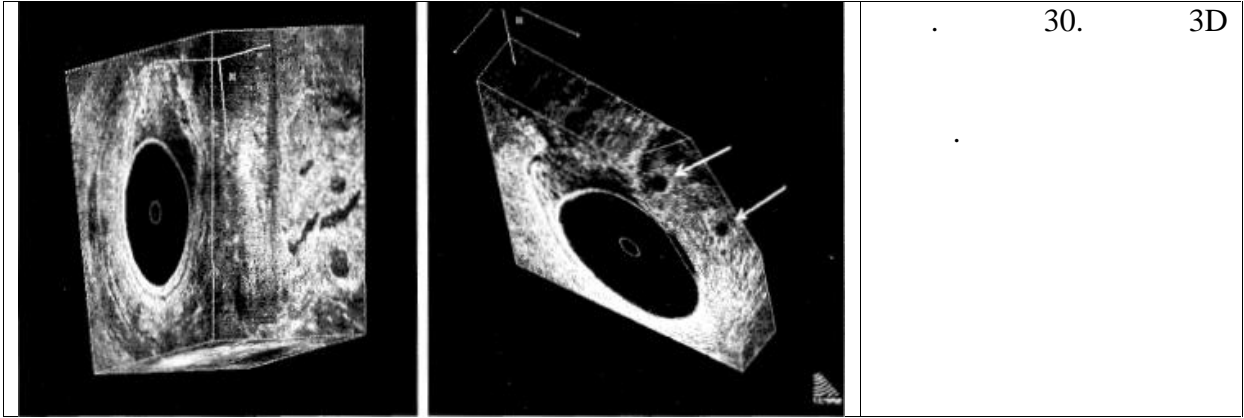
. 26. 2D
T3



. 27. 2-D

3





4.4.

” . ”

1.5 Tesla,

15

MRT – GE signa HDxt 1.5T.

1 2 -

. MnDPDP

(5 /)

2-3 /

15 .



A



Б

. 32. MRT – GE signa HDxt 1.5T. (,)



. 33.

2 ,

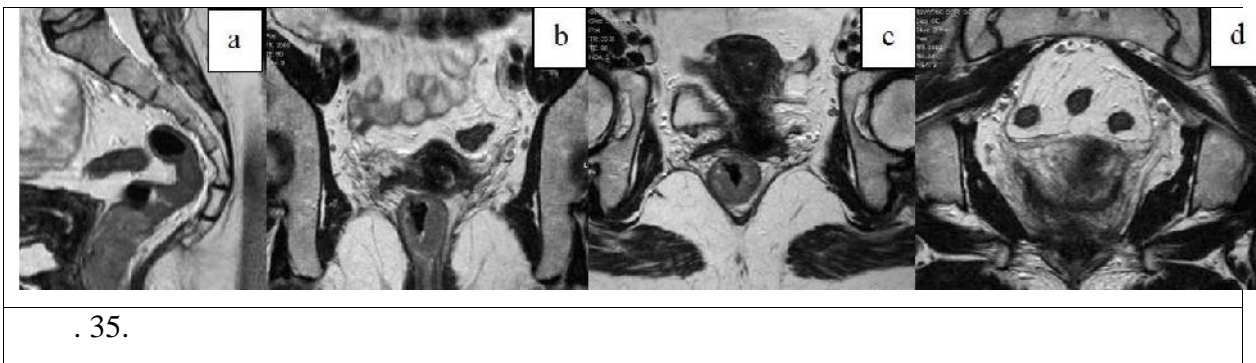
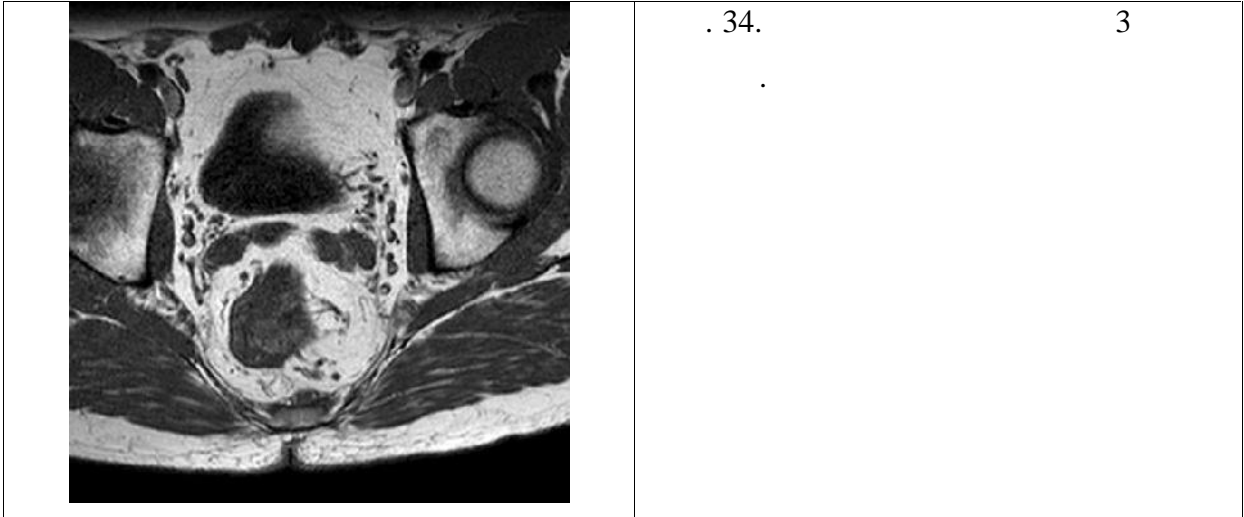
()

- 3 .

(

).

pT2 N1.



4.5.

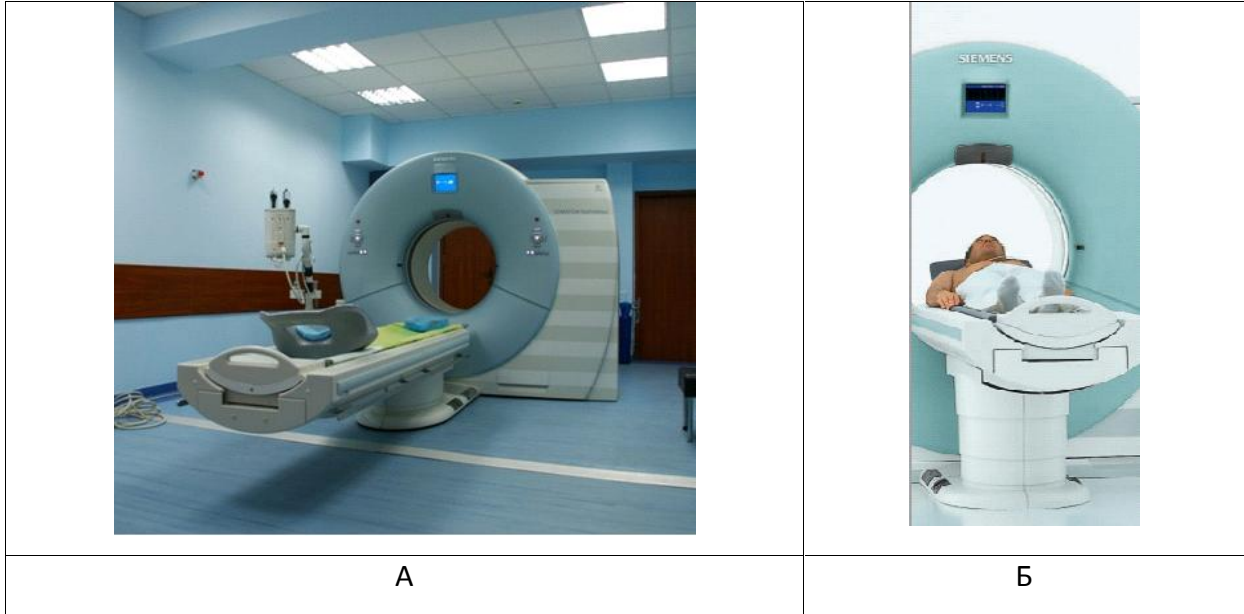
„ . ” ,

45 - 20 25 ,

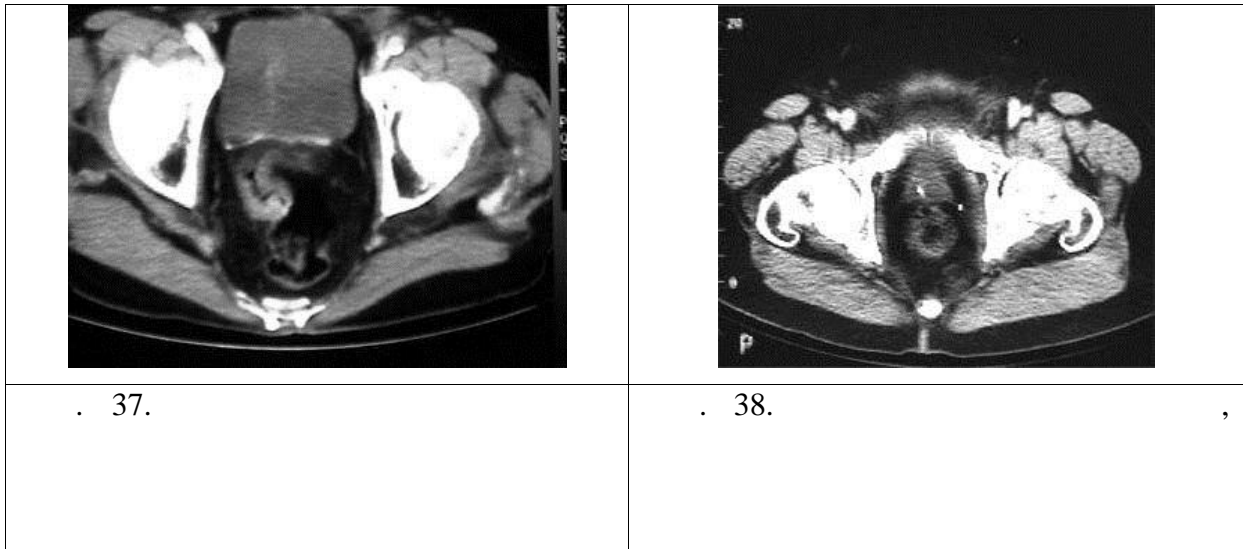
, - , N-

Siemens somatom –

definition dual source Siemens Spirit somatom



. 36. CT- Siemens somatom – definition dual source (,)



4.6.

$$\text{Чувствителност} = \frac{\text{(истински позитивни)}}{\text{(истински позитивни) + (фалшиво позитивни)}}$$

$$\text{Специфичност} = \frac{\text{(истински негативни)}}{\text{(истински негативни) + (истински позитивни)}}$$

5.

2011-2013

53

- 31 (58%) 22 (42%)

, (2D,3D,), , .

” . “ ,

: 1.

Linea

anocutanea; 2.

; 3.

(); 4.

5. ; 6. - ; 7. N-

5.1.

53 .

16 .

5.2.

53 . 25 (10 15)

1-5 linea anocutanea, 23 (11 12)

6-10 5 (4 1) 11-

16 . 7 1/2 , 10

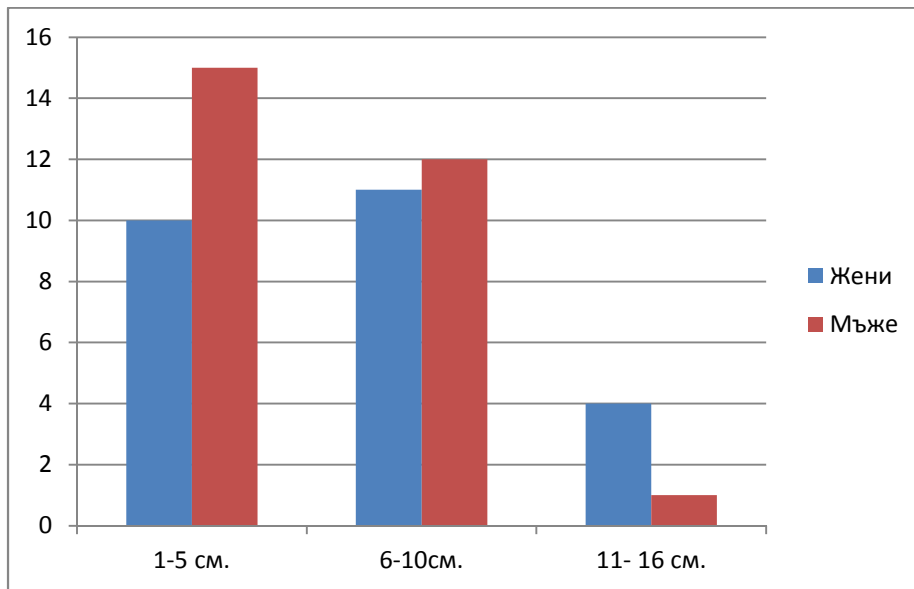
1/3 , 7 2/3 , 7
3/4 22 .

, N . 82% 78%
linea anocutanea, 78% 71%
87%
91%

linea anocutanea		
1-5 .	10	15
6-10 .	11	12
11- 16 .	4	1

. 7. linea anocutanea . -

1 10 .

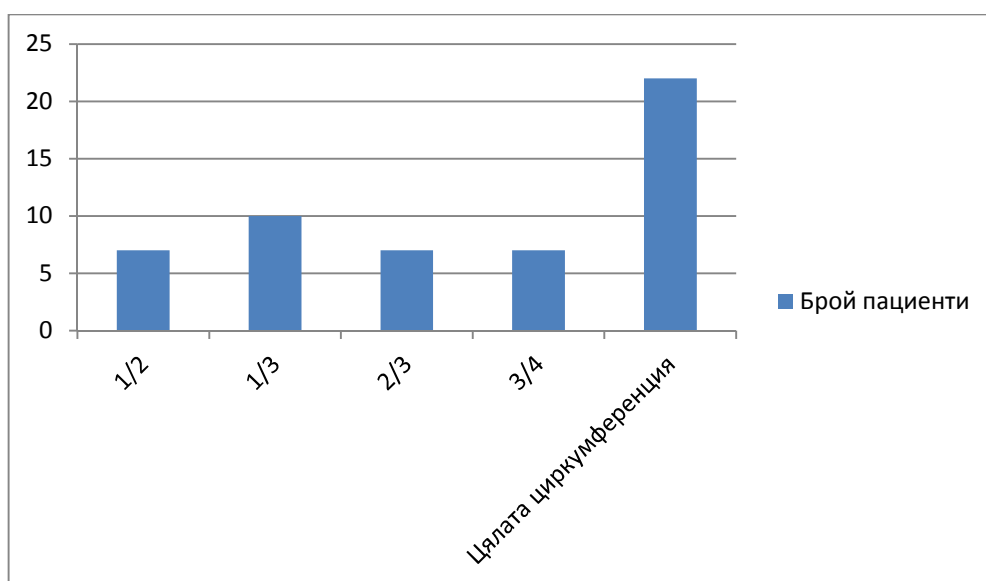


. 39. linea anocutanea . -

1 10 .

1/2	7
1/3	10
2/3	7
3/4	7
	22

8.

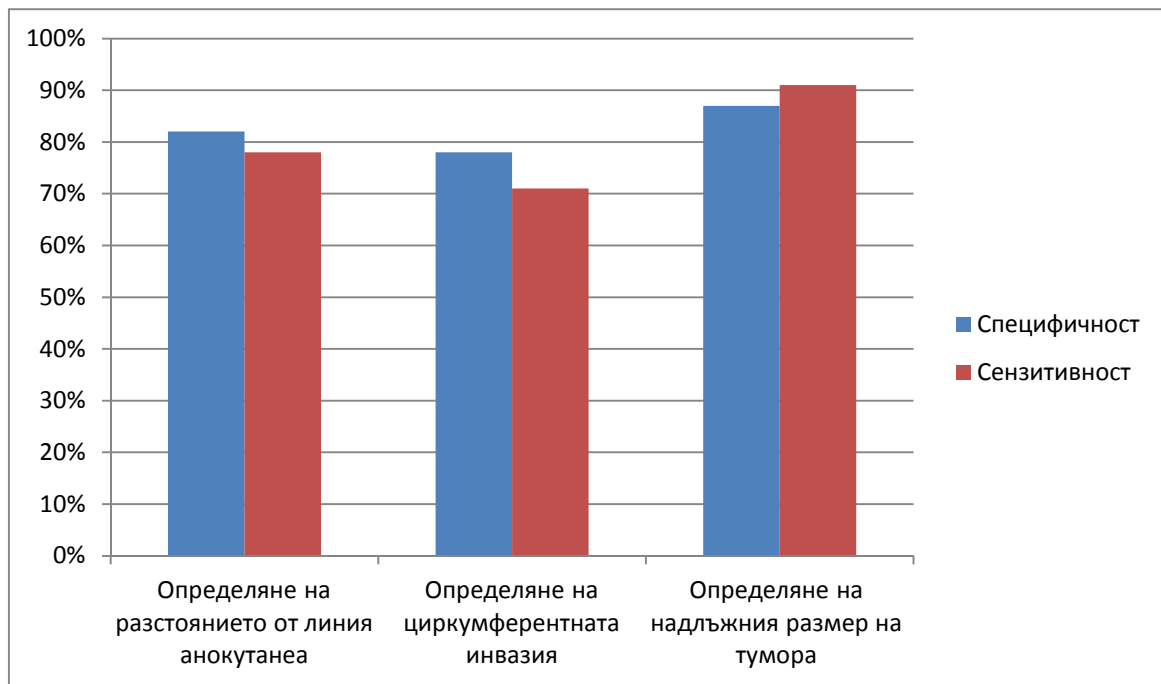


40.

linea anocutanea	82%	78%
	78%	71%
	87%	91%

. 9.

(%).



. 41.

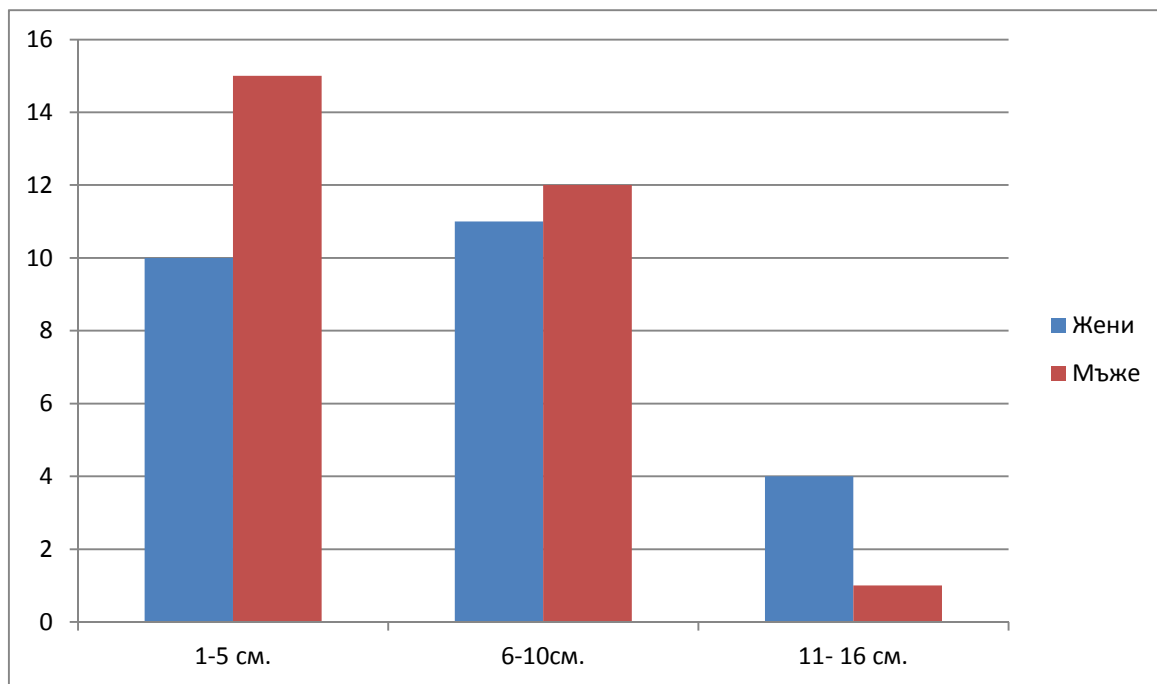
(%).

5.3. (2D) 53 . 25 (10 15
) 1-5 ,
 23 (11 12) 6-10 5 (4 1
) 11-16 . 10 1/3

, 7 1/2 , 7 2/3
 , 7 3/4 22
 . 16
 (8 , 8
), 9
 .
 , T N.
 u 1, 11 u 2, 25 u 3 16 u 4.
 46 uN0, 7 uN1.
 86% 84% 78% 82% linea
 anocutanea, 82% 78%
 92% 91%
 . 75% 79%
 , 72% 62%
 , 92% 95%
 (1 86% 97%; 2 – 78% 98%; 3 –
 81% 88%; 4 – 75% 95%) 60% 55%

linea		
anocutanea		
1-5	10	15
6-10	11	12
11- 16	4	1

. 10. linea anocutanea (2D).
 - 1 10 .



. 42.

linea anocutanea

(2D).

-

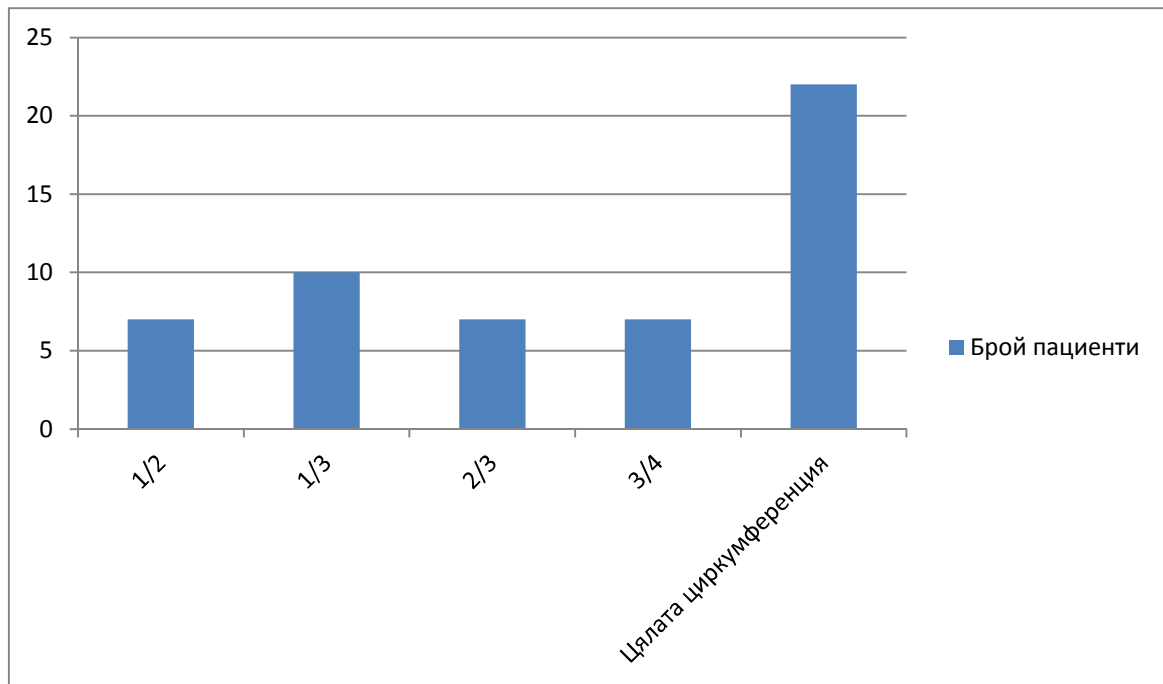
1 10 .

1/2	7
1/3	10
2/3	7
3/4	7
	22

. 11.

(2D).

-



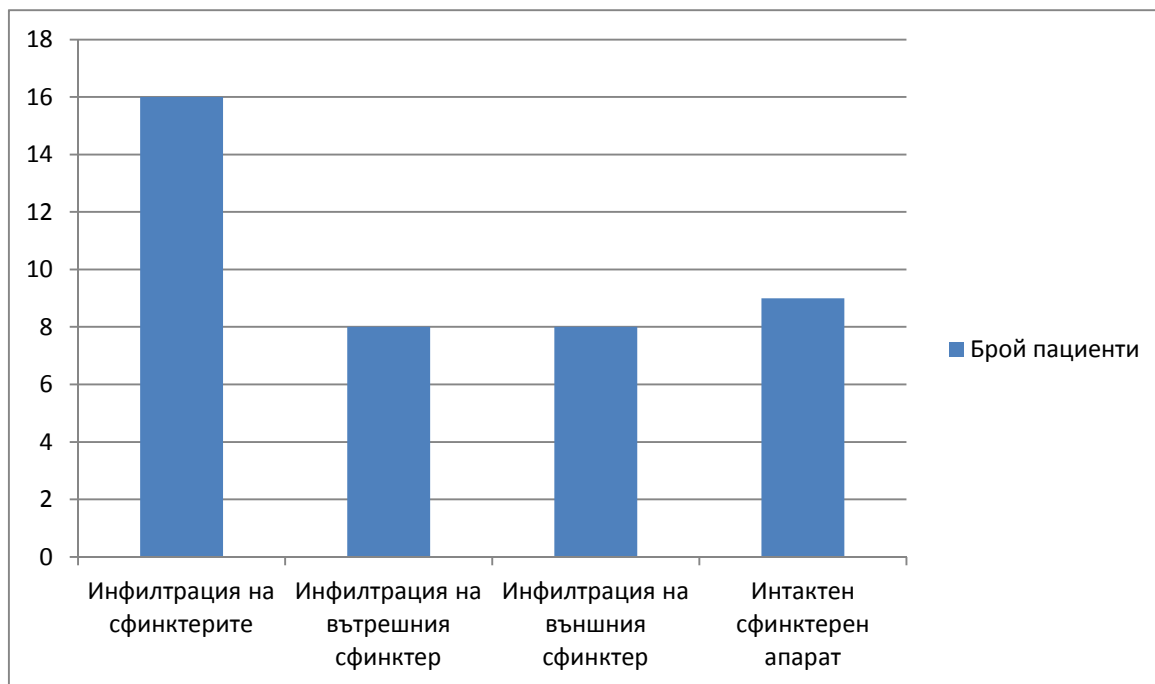
. 43.

(2D). -

	16
	8
	8
	9

. 12.

(2D).



. 44.

(2D).

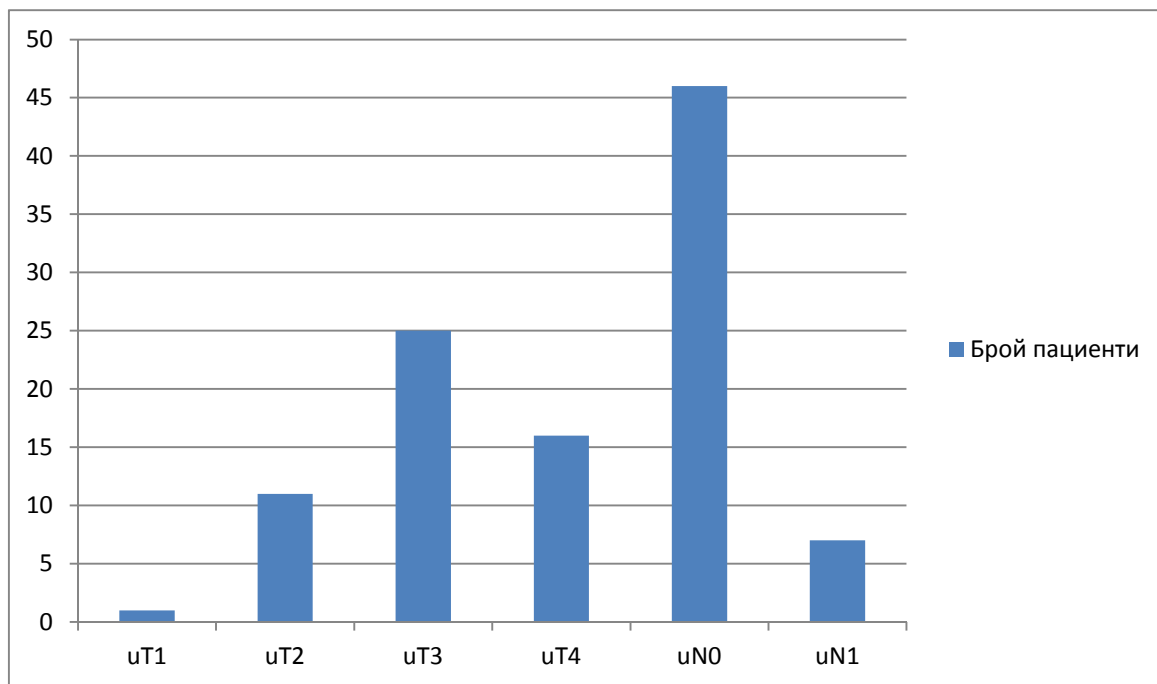
	N
uT1	1
uT2	11
uT3	25
uT4	16
uN0	46
uN1	7

. 13.

N

(2D).

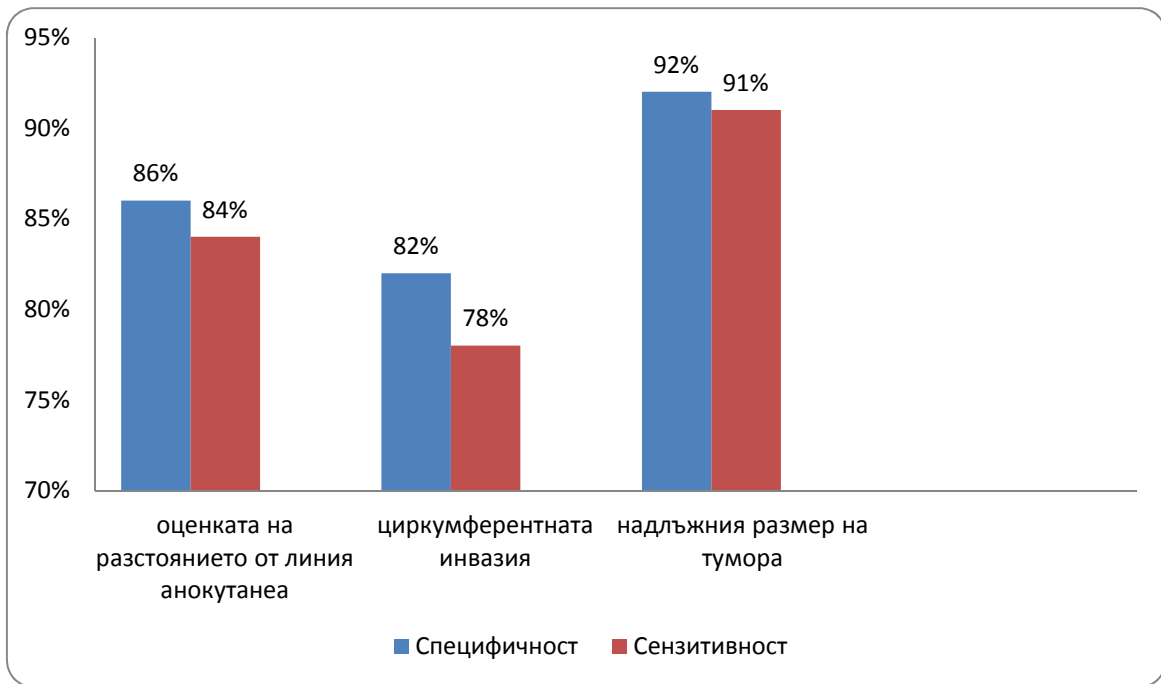
u 3, -



. 45. N (2D). -
 u 3, -

	86%	84%
	82%	78%
	92%	91%

. 14. (2D)
 (%). (2D)



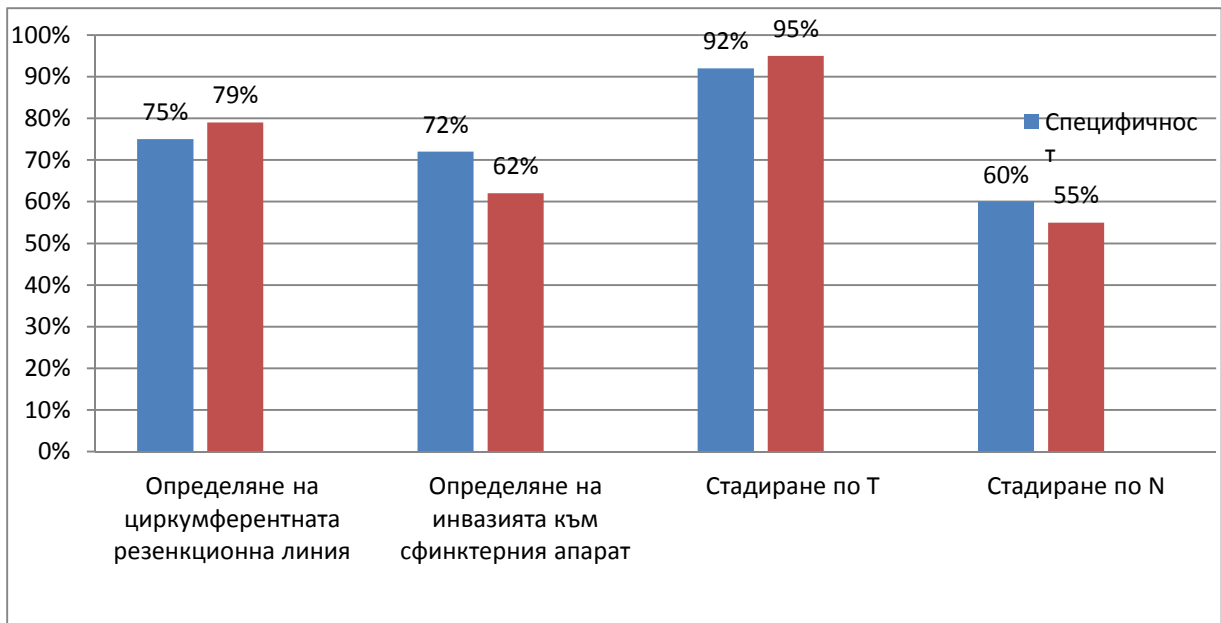
. 46. (2D)
(%). (2D)

	75%	79%
	72%	62%
	92%	95%
N	60%	55%

. 15. (2D)
(%). (2D)

;

N.



. 47.

(2D)

(%). (2D)

N.

5.4. (3D)

53

. 25

(10

15

)

1-5

linea anocutanea,

23 (11

12

)

6-10

5 (4

1)

11-16

12

1/3

, 8

1/2

, 6

- 2/3

, 6

3/4

22-

14

(8

, 6

), 11

2D-

3D-

T N.

u 1, 13

u 2, 27

u 3 10

u 4.

3D , 49

uN0, 4

uN1.

89%

91 %

linea anocutanea, 85%

82%

97%

95%

. 3D

83%

71%

, 89%

92%

, 96%

98%

72%

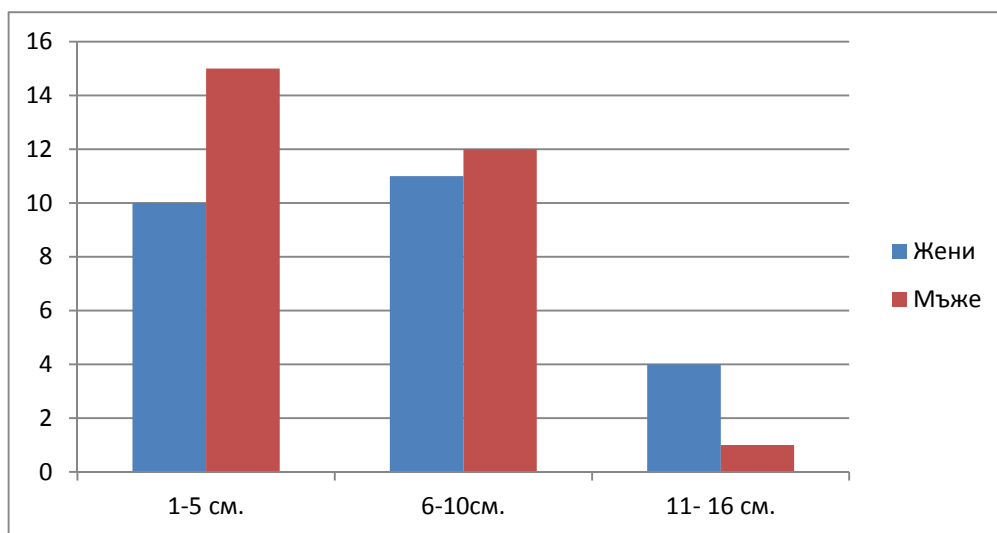
65%

linea anocutanea		
1-5 .	10	15
6-10 .	11	12
11- 16 .	4	1

. 16. linea anocutanea

(3D).

1 10 .



. 48. linea anocutanea

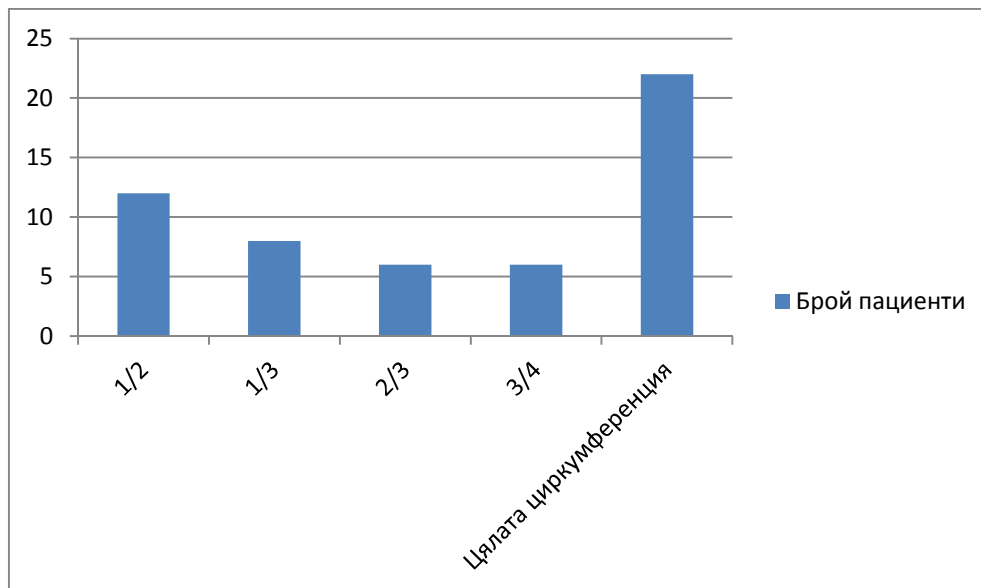
(3D).

1 10 .

1/2	12
1/3	8
2/3	6
3/4	6
	22

. 17.
(3D). -

.

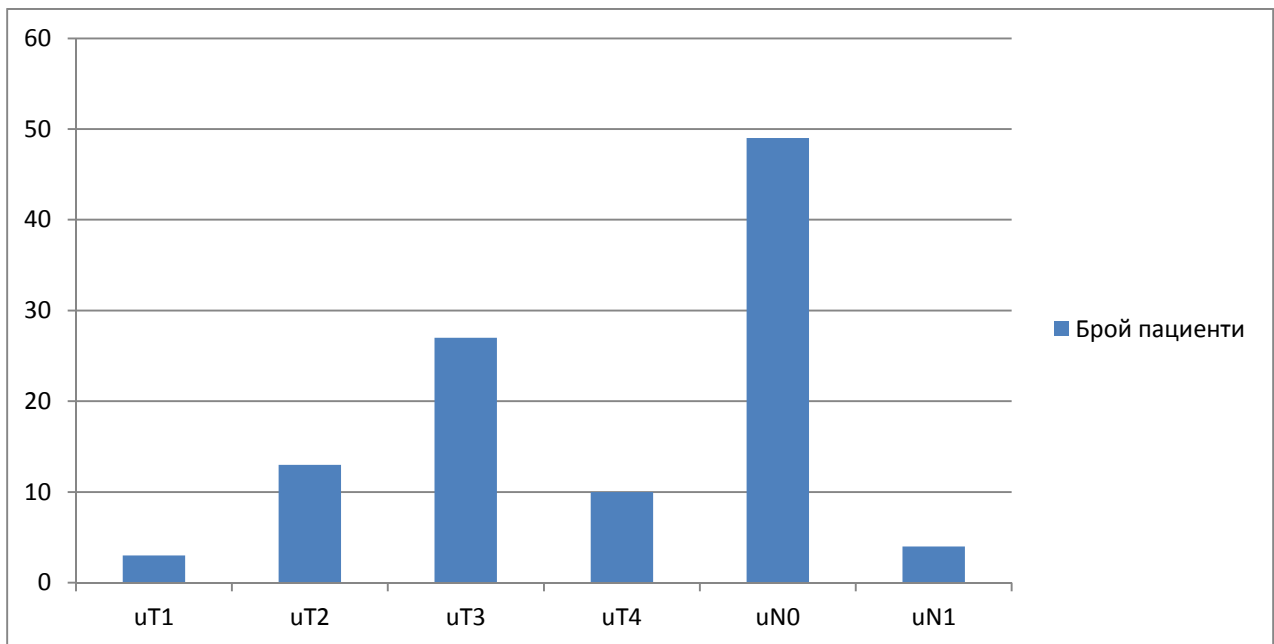


. 49.
(3D). -

.

N	
uT1	3
uT2	13
uT3	27
uT4	10
uN0	49
uN1	4

. 18. N (3D). - u 3,



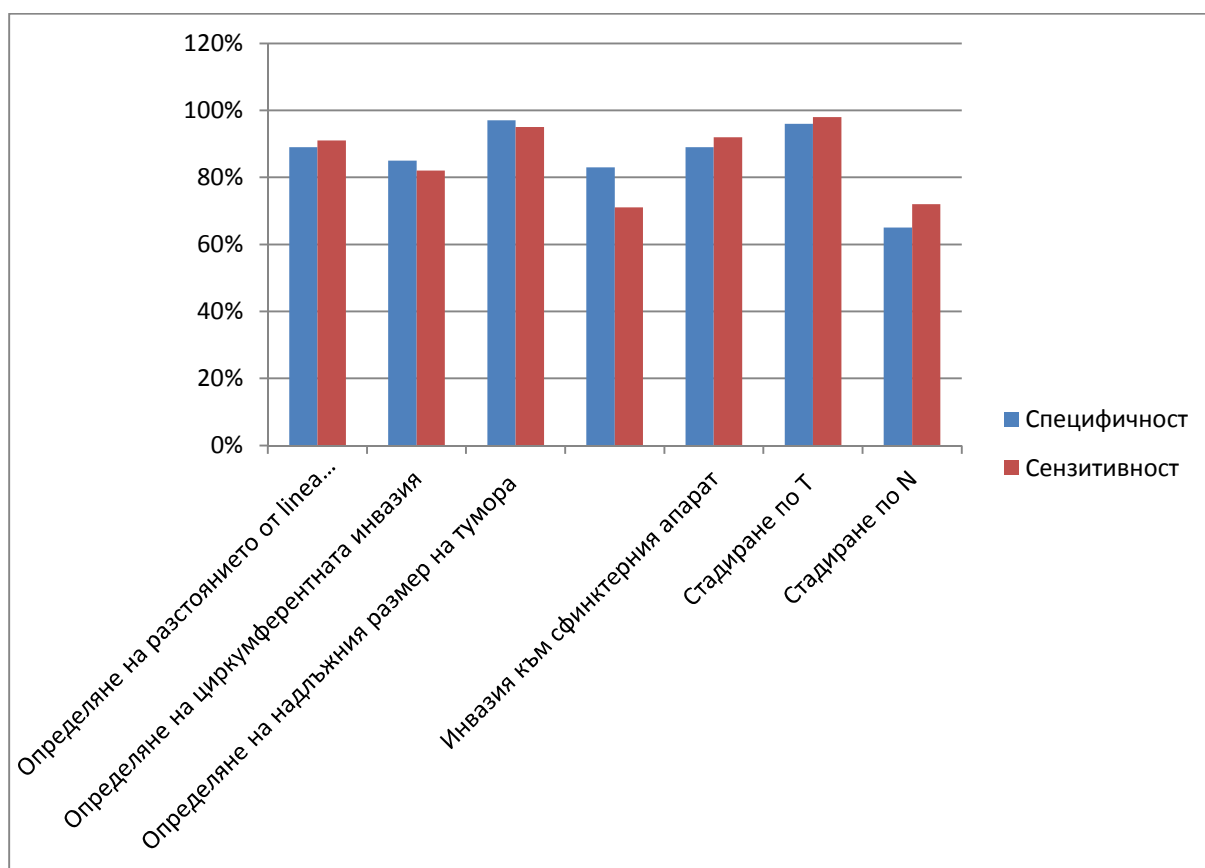
. 50. N (3D). -

u 3, -

anocutanea	linea	89%	91%
		85%	82%
		97%	95%
		83%	71%
		89%	92%
		96%	98%
N		65%	72%

. 19.

(3D).



. 51.

(3D).

5.5.

()

7

.

2

(1

1

)

1-5

linea anocutanea,

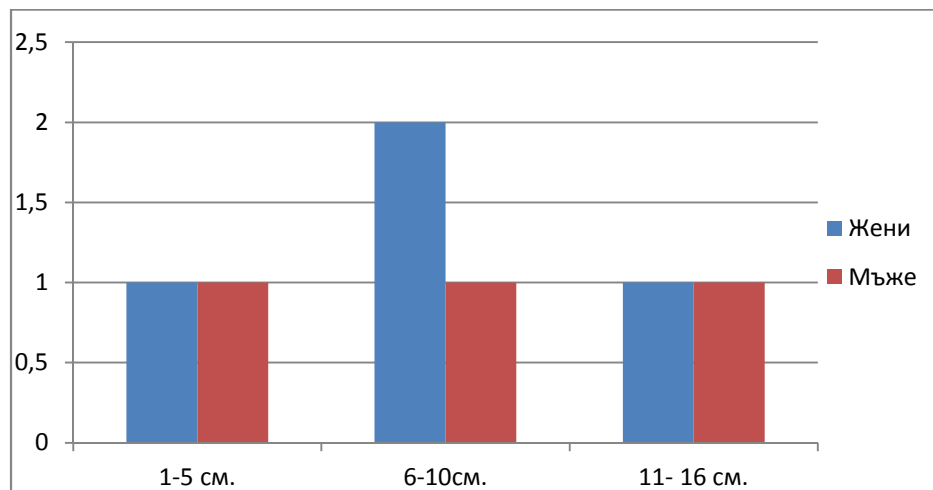
3 (2

1) 6-10 2 (1 1)
 11-16 . 2 1/3 ,
 1 1/2 , - 2/3 ,
 3/4 2 , .
 , 6
 .
 u 1, 2 u 2, 3
 u 3 1 u 4. 6
 uN0, uN1.

linea anocutanea		
1-5 .	1	1
6-10 .	2	1
11- 16 .	1	1

. 20. linea anocutanea ().

- 1 10 .



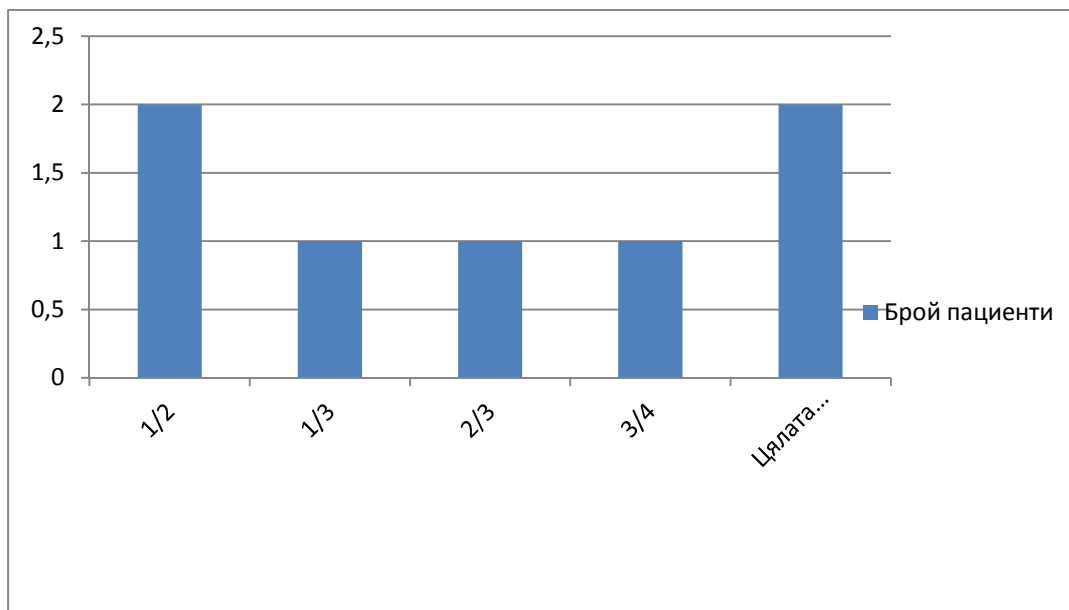
. 52. linea anocutanea ().

- 1 10 .

1/2	2
1/3	1
2/3	1
3/4	1
	2

. 21.

().



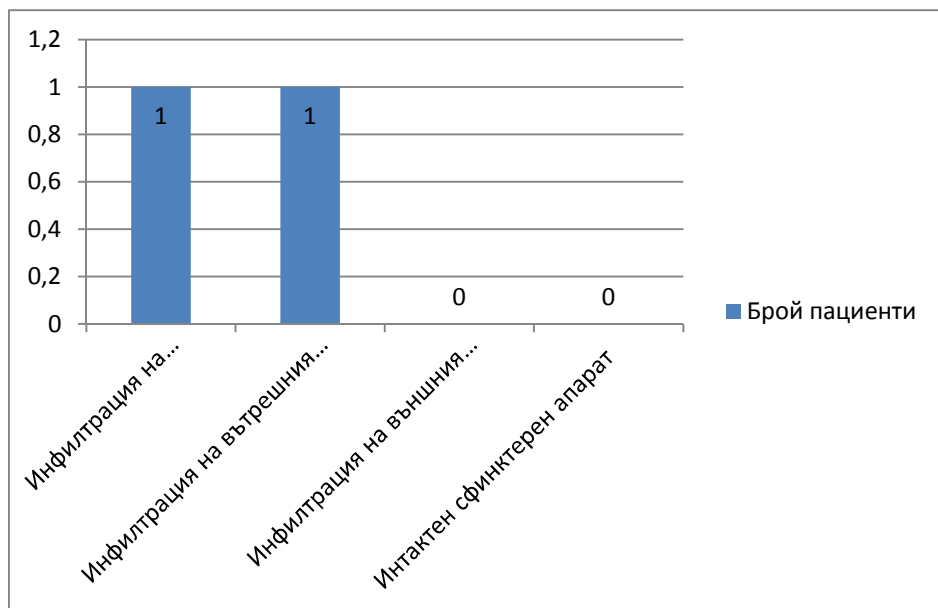
. 53.

().

	1
	1
	0
	0

. 22.

().



. 54.

().

	N
uT1	1
uT2	2
uT3	3
uT4	1
uN0	6
uN1	1

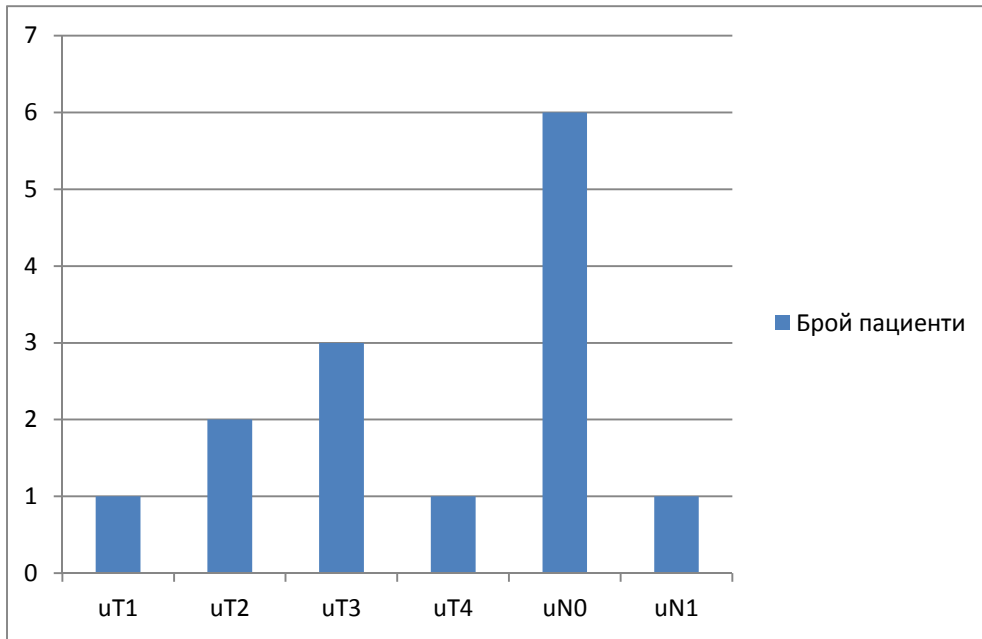
. 23.

N

().

-

u 3, -



. 55. N (). -
 u 3, -

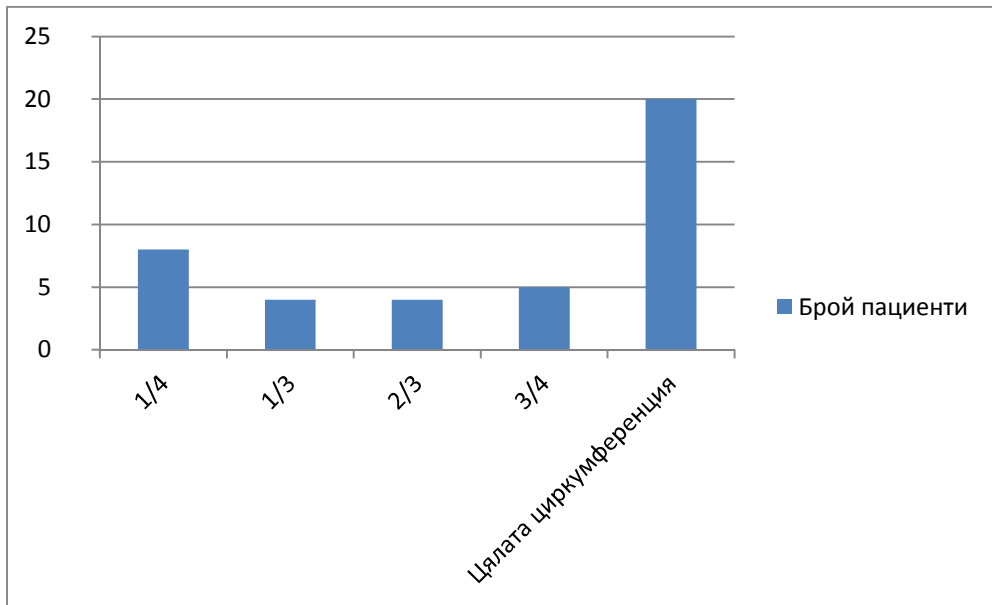
5.6. 43 . 8 1/4
 , 4 1/3 , 4 2/3
 , 5 3/4 20 -

. , T N .
 1+ 2+ 3 4
 : 35 1- 3 8 4. NO, 2
 N1, 2 N2. 56% 52%

linea anocutanea,
 N 79% 86%
 55% 74%

1/4	8
1/3	4
2/3	4
3/4	5
	20

. 25.



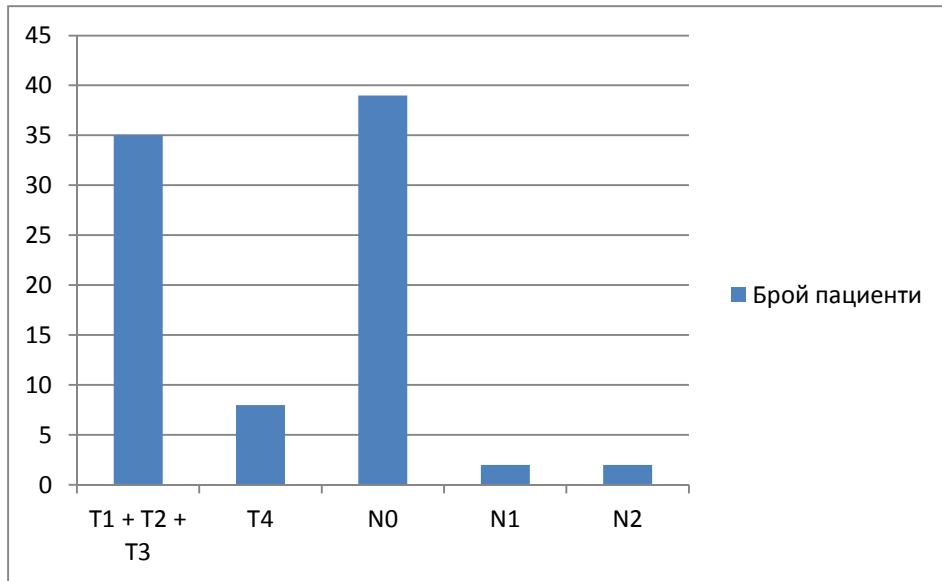
. 56.

T N	
1 + 2 + 3	35
T4	8
N0	39
N1	2
N2	2

. 27.

N

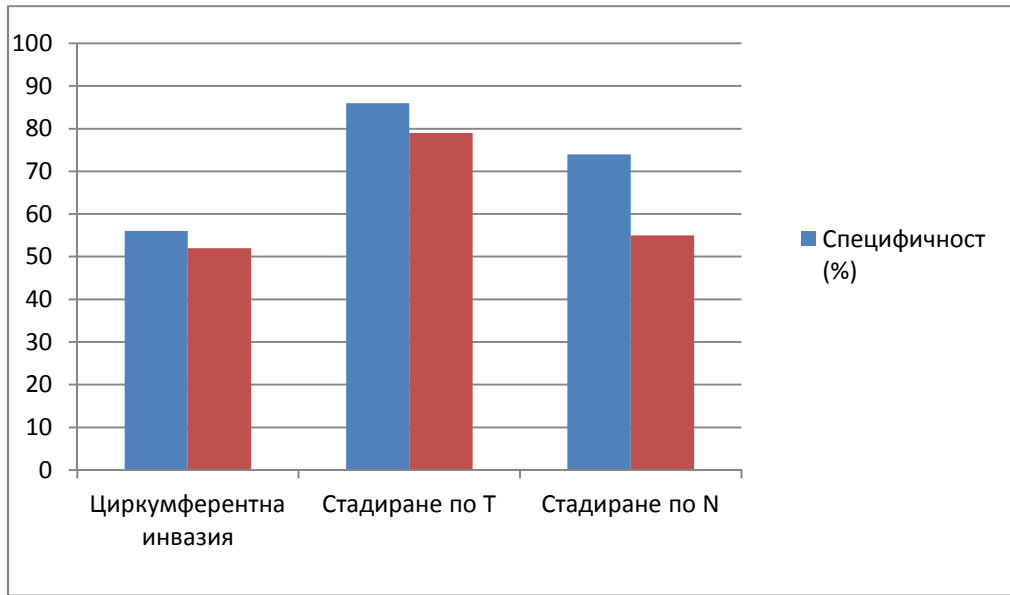
1- 3, -



. 57. N . -
1- 3, -

	(%)	(%)
	56%	52%
	86%	79%
N	74%	55%

. 28.
(%). - (2D, 3D,
)
T N.



. 58.

(%).

-

(2D, 3D,

)

T N.

5.7.

15

.

12

(5

7

)

1-5

linea anocutanea,

3 (2

)

6-10

.

3

1/4

,

2

1/3

,

1

2/3

,

2

3/4

7

3

(

2

,

1

),

12

T N.

1, 3

- 2, 9

3

1

4.

12

N0, 2

N1,

N2.

81%

92%

83%

87%

96%

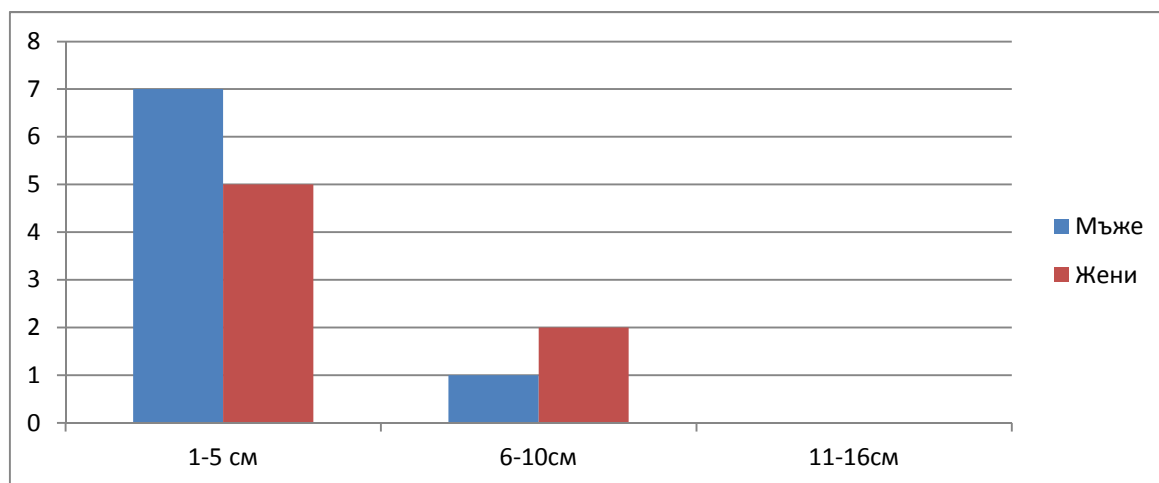
98%

, 95% 97% , 94% 98%
 (1 48% 98%; 2 – 79% 84%; 3 –
 82% 89%; 4 – 94% 97%) 66% 76%

anocutanea	linea		
1-5	12	7	5
6-10	3	1	2
11-16	0		
	15	8	7

. 29. linea anocutanea

1 5 .

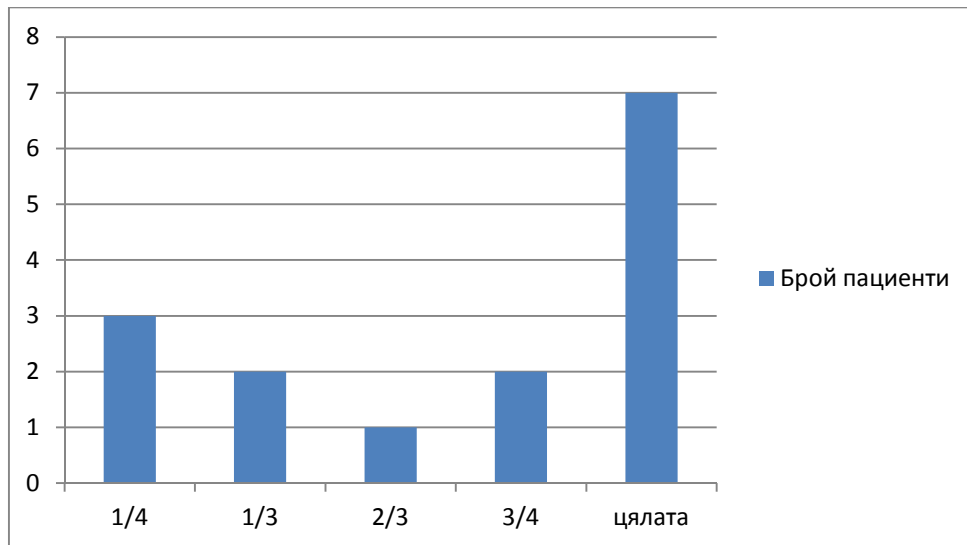


. 59. linea anocutanea

1 5 .

1/4	3
1/3	2
2/3	1
3/4	2
	7

. 30.

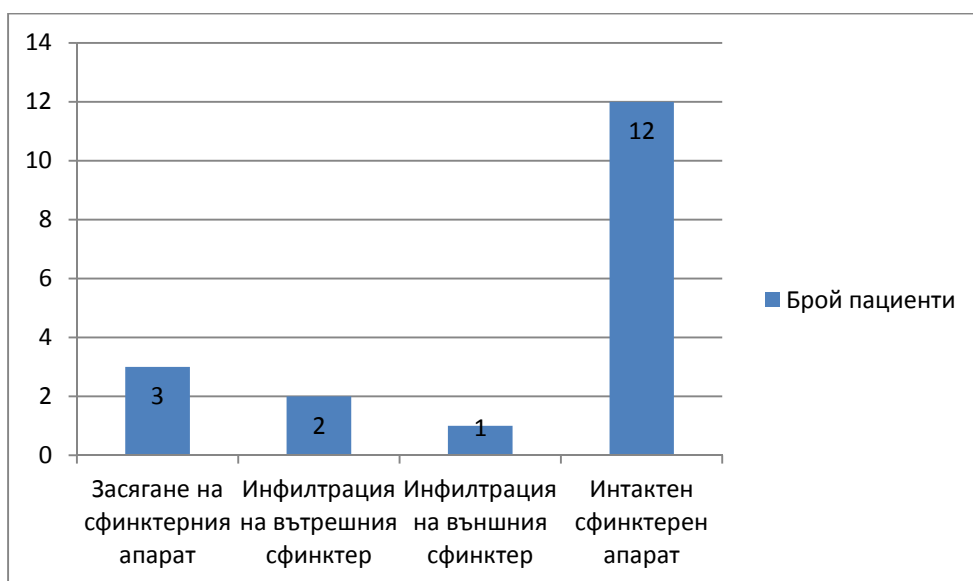


. 60.

	3
	2
	1
	12

. 31.

1/4

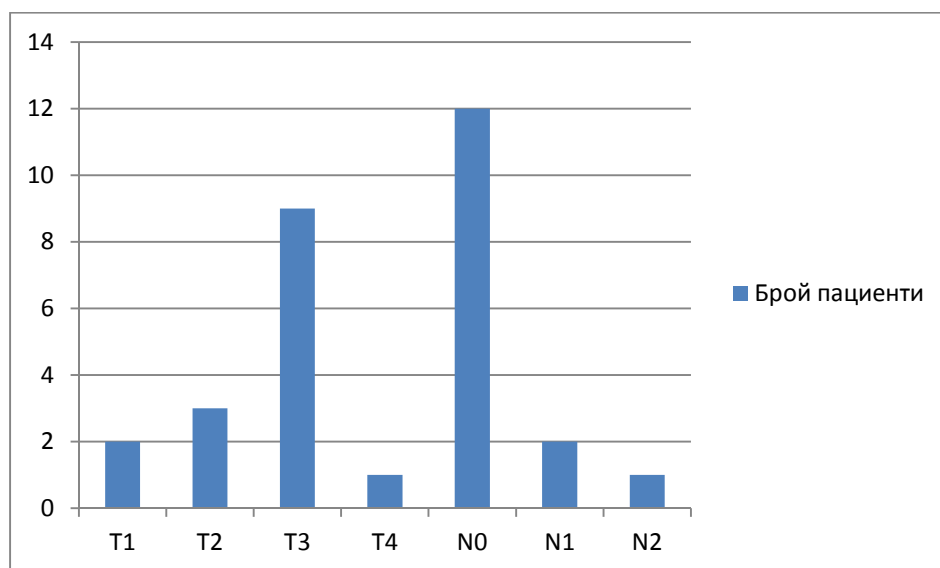


. 61.

1/4

T	N
1	2
T2	3
T3	9
T4	1
N0	12
N1	2
N2	1

. 32. N .
- 3.



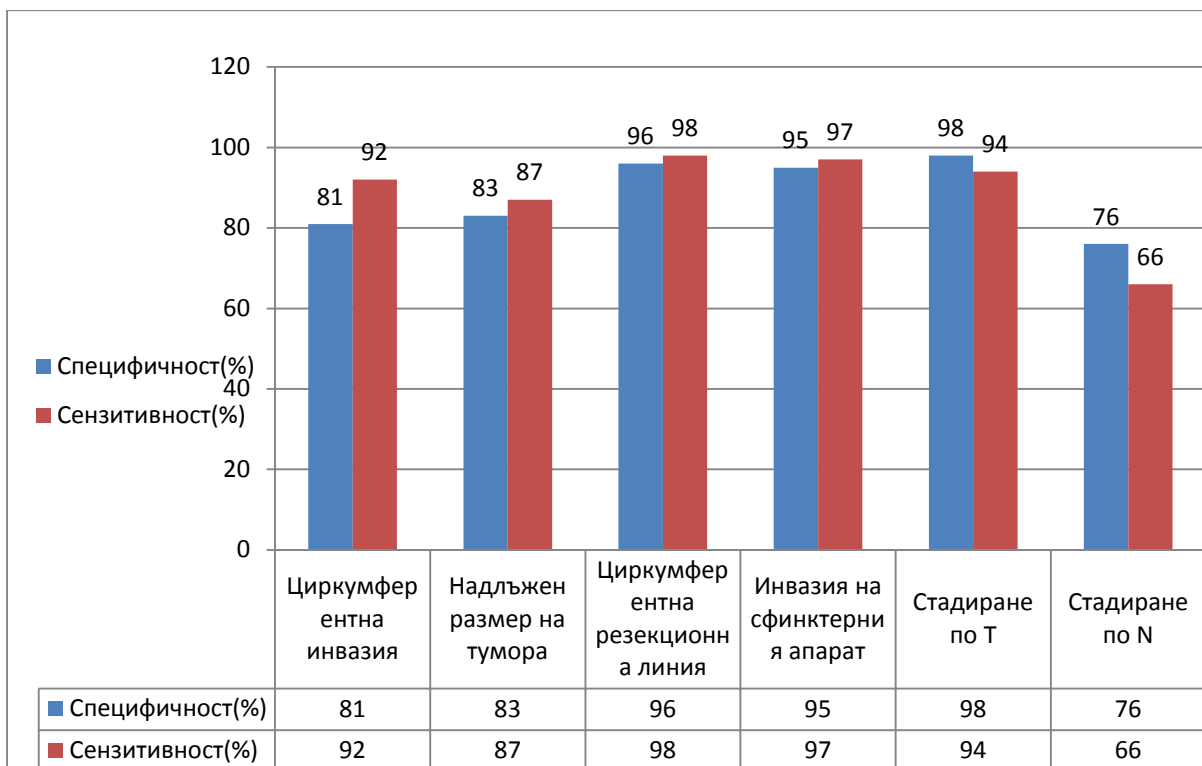
. 62. N .
- 3.

	(%)	(%)
	81	92
	83	87
	96	98
	95	97
	98	94
N	76	66

. 33.

M

(3D, 2D).



. 63.

. M

(3D, 2D).

			(2D)		(3D)		()					
lineaan ocutane a	82%	78%	86%	84%	89%	91%	x	x	x	x	x	x
	78%	71%	82%	78%	85%	82%			56%	52%	81%	92%
			75%	79%	83%	71%	x	x	x	x	96%	98%
			72%	62%	89%	92%	x	x	x	x	95%	97%
	87%	91%	92%	91%	97%	95%	x	x	74%	72%	83%	87%
-			92%	95%	96%	98%	x	x	86%	79%	98%	94%
N-			60%	55%	65%	72%	x	x	74%	55%	86%	90%

. 34.

(3D -)

	T1		T2		T3		T4	
	48%	86%	79%	78%	82%	81%	94%	75%
	98%	97%	84%	98%	89%	88%	97%	95%

. 35.

1 2,

-

3 4 .

6.

80-

1985 .

() 1980 . 2008 .

(88%-95%).

93.8% 96.3%.

92%

95%

T-

35

2700

73.2%,

75.8%.

60%

55%

N-

(2D)

3-D

offline

2D

N

3D

3D-

N,

linea anocutanea,

2D-

й

N

7

70.5%

61.5% N-

83

N.

1986.

()

(>2).

(-

()

66%-94%.

2 3.

muscularis propria

93% 76%.

(4).

4

96%.

1 2

(

50%, 100% 80%, 83%),

3

4

(

84%, 90% 94%, 98%).

71% 91%

5 (), 7 (), 9 (), 10 ().

N-

82% 97%.

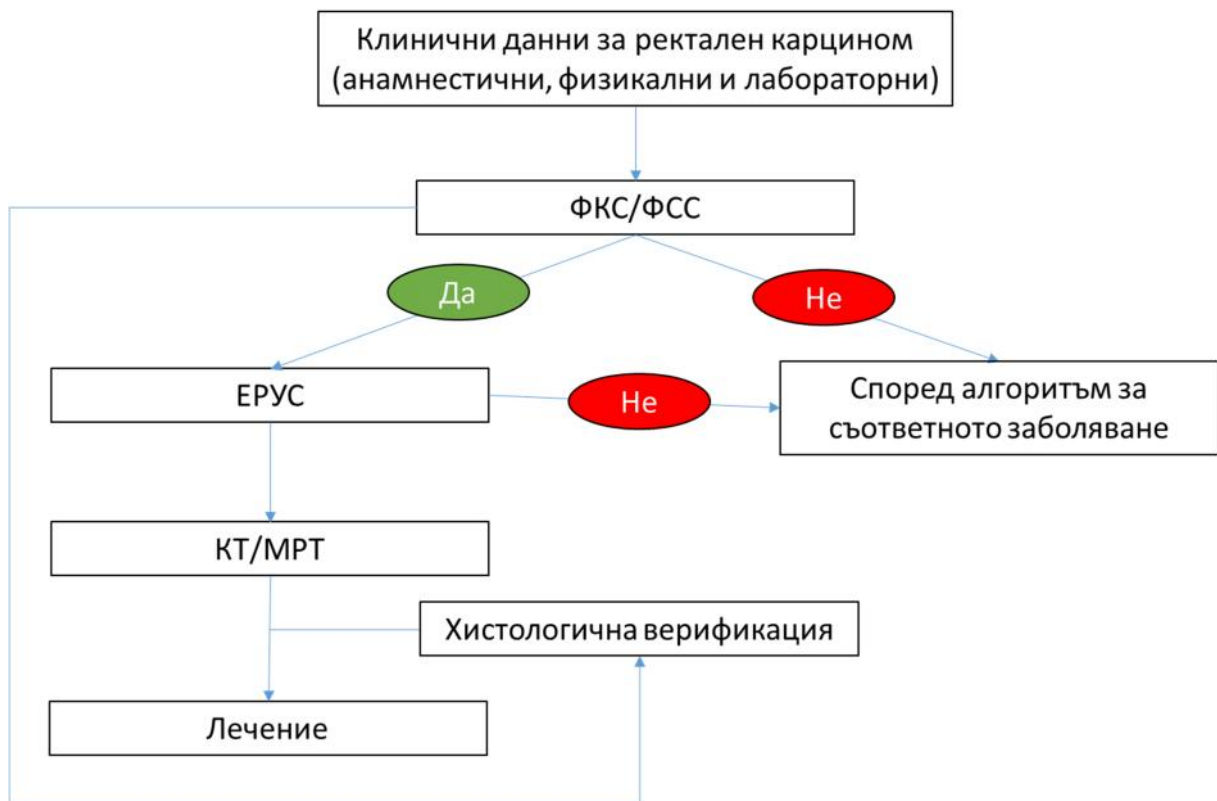
(66%, 76%).
()

92%

80- 20

3D

3D-



7.

1. 3D-

2. -

T N.

3. 3D-

2D-

3D-

4.

3D-

5.

8.

1.

3D-

2.

uT uN

3.

4.

- :
 • ,”
 , ” . “ , .
 ,”
 " . " , .
- . ,”
 - . “ , . - 3D- - ,
- ,
 ,
 ” . “ ,”
 , . ,

- **Doc. Marianne Starck, D.M., Consultant Colorectal Surgeon, Malmö University Hospital, Sweden** .
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