

**РЕЗЮМЕТА**  
**НА ОТПЕЧАТАНИТЕ В ПЪЛЕН ТЕКСТ НАУЧНИ ТРУДОВЕ**  
**НА ДОЦ. Д-Р НИКОЛАЙ КОЛЕВ, ДМ**  
**МЕДИЦИНСКИ УНИВЕРСИТЕТ - ПЛЕВЕН**

**ПУБЛИКАЦИИ В ЧУЖДИ И БЪЛГАРСКИ ИЗДАНИЯ, КОИТО СА РЕФЕРИРАНИ И ИНДЕКСИРАНИ В SKOPUS И WEB OF SCIENCE**

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**Validation of Nomograms Predicting Lymph Node Involvement in Patients with Prostate Cancer Undergoing Extended Pelvic Lymph Node Dissection**

Alexander I. Hinev<sup>a</sup> · Deyan Anakievski<sup>a</sup> · Nikolay H. Kolev<sup>b</sup> · Vesselin I. Hadjiev<sup>c</sup>

<sup>a</sup>Clinic of Urology, 'St. Marina' University Hospital, Varna, <sup>b</sup>Clinic of Urology, 'G. Stranski' University Hospital, Plevan, and <sup>c</sup>Department of Statistics, University of Economics, Varna, Bulgaria

**Key Words**

Prostate cancer · Extended pelvic lymph node dissection · Lymph node involvement · Nomograms · Validation

**Abstract**

Our aim was to validate Briganti's nomograms predicting the probability of lymph node involvement (LNI) in prostate cancer (PCa). Clinicopathological data of 256 PCa patients who underwent extended pelvic lymph node dissection (ePLND) and radical prostatectomy (RP) were obtained from two Bulgarian institutions. Predicted probabilities of LNI were assessed using Briganti's nomograms based on ePLND. In addition to the established basic LNI predictors, Briganti's nomograms included the number and percentage of positive biopsy cores (versions 2007 and 2012). The accuracy of these nomograms was compared with the updated Memorial Sloan-Kettering Cancer Center (MSKCC) nomogram (version 2011). Receiver-operating characteristics analysis was done to assess the discriminative ability of each of the nomograms applied. All of Briganti's nomograms showed a higher predictive accuracy as compared with the updated MSKCC nomogram. The respective AUC values were calculated as 0.847, 0.837, 0.858 and 0.875 for the four Briganti nomograms, and 0.770 for the updated MSKCC nomogram, respectively. De-

spite the potential for heterogeneity in patient selection and management, all predictions demonstrated high concordance with actual observations. Compared with other similar prognostic tools the updated Briganti nomogram (version 2012) showed the highest predictive accuracy and should therefore be preferred.

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**Introduction**

Accurate assessment of lymph node involvement (LNI) is of paramount importance for all newly diagnosed prostate cancer (PCa) patients. It is well known that radical prostatectomy (RP) is most effective when the disease is confined to the prostate, while the presence of LNI is related to disease aggressiveness and poor oncological outcome [1–3]. On the other side, patients who have a low probability of having LNI might be spared from pelvic lymph node dissection (PLND) and from the additional morbidity related to it [4].

This study was presented at the 5th Uro-Oncology Winter Congress, Skopje, Macedonia, January 30–February 2, 2013, and published as an abstract in *Yeni Uroloji Dergisi (The New Journal of Urology)*, Special Edition, 2013, pp 147–148.

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E-Mail karger@karger.com  
www.karger.com/doi

Alexander I. Hinev  
Clinic of Urology  
'St. Marina' University Hospital  
BG-9010 Varna (Bulgaria)  
E-Mail ahinev@yahoo.com

2. Bogdanov, Sl.H., Radev, Vl.R., Stefanovski, P.H., Kolev, N.H., Radev, R.N. Structural and demographic characteristics of the patients passed in urological clinic (2017) *Anaesthesiology and Intensive Care*, 46 (1), pp. 28-31. ISSN 13104284. (SJР=0.100)

## АНЕСТЕЗИОЛОГИЯ И ИНТЕНЗИВНО ЛЕЧЕНИЕ

### СТРУКТУРНА И ДЕМОГРАФСКА ХАРАКТЕРИСТИКА НА ПРЕМИНАЛИТЕ БОЛНИ В УРОЛОГИЧНАТА КЛИНИКА

*Богданов Сл.Хр.<sup>1</sup>, Радев Вл.Р.<sup>1</sup>, Стефановски П.Х.<sup>1</sup>, Колев Н.Н.<sup>2</sup>, Радев Р.Н.<sup>1</sup>*  
<sup>1</sup>УМБАЛ Плевен – Клиника по Анестезиология и интензивно лечение  
<sup>2</sup>УМБАЛ Плевен-Клиника по Урология

### STRUCTURAL AND DEMOGRAPHIC CHARACTERISTICS OF THE PATIENTS PASSED IN UROLOGICAL CLINIC

*Bogdanov Sl.H.<sup>1</sup>, Radev Vl.R.<sup>1</sup>, Stefanovski P.H.<sup>1</sup>, Kolev N.H.<sup>2</sup>, Radev R.N.<sup>1</sup>*  
<sup>1</sup>Pleven University Hospital - Department of Anesthesiology and Intensive Care  
<sup>2</sup>Pleven University Hospital - Department of Urology

**Абстракт :**  
Средната продължителност на живота във всички страни от Европейският съюз се увеличава. България не прави изключение от това. Прогнозата за демографската структура на населението на България е за увеличаване на, както броя на населението ≥65год. така и на неговия дял спрямо общия брой на населението в страната. Най-често срещаният малигнен процес при мъжете е карцинома на простатната жлеза и ние установихме, че в процентно съотношение радикалната простатектомия е по-честата хирургична интервенция на територията на УМБАЛ „Д-р Г.Странски“ и варира в границите около 70-75%. При тези операции за годините от 2013 до 2015 преобладават пациентите от групата на ≥65 год., като техния брой нараства непрекъснато. Значителен ръст се констатира и в групата на пациентите с едно и две или повече придружаващи заболявания, като не се открива сигнификантна разлика в средната възраст между групите без, с едно и с две или повече придружаващи заболявания.

**Изводи:** Нараства броят на разширените урологични интервенции като радикална простатектомия и цистектомия както като цяло така и като относителен дял от общия брой постъпили за лечение. Най-честото придружаващо заболяване в изследваната група е артериалната хипертония следвано от сърдечната недостатъчност. Заболявания като хроничен бронхит, хронична обструктивна болест, хронична съдова недостатъчност и сърдечната недостатъчност през изследваните години остават относително константни. Други заболявания като артериалната хипертония и диабетът отбелязват значителен ръст. Пациентите с две или повече придружаващи заболявания преобладават (53%) в изследваната група.

**Ключови думи :** епидемиология и демографска структура на урологичните заболявания, радикална простатектомия, коморбидитет, урологични операции върху възрастни пациенти.

Средната продължителност на живота на гражданите на днешните 27 страни-членки на ЕС се е увеличила с около 10 години от 1960 до 2010 година. Този период може да се раздели на две-до 1980 /предимно на естествения прираст/ и след 1990 /предимно от процесите на миграция/ (1).

Населението на 27-те страни-членки на ЕС нараства от 482 767 512 през 2000 до 502 489 143 през 2011 година.

Таблица №1 Население на ЕС по години (27 страни членки)

Година	Брой население
1960 г.	Около 400 млн.
2000 г.	482,767 512

**Abstract:**  
The average life expectancy in all countries of the European Union increases, Bulgaria is no exception to this. The forecast for the demographic structure of the population of Bulgaria is to increase as the population ≥65god. and its share of the total population in the country. The most common malignancy in men is carcinoma of the prostate gland. We have found that a percentage radical prostatectomy is more common surgery within the University Hospital "Dr. G. Stranski" and ranges around 70-75%. In these operations for the years from 2013 to 2015 dominated the group of patients ≥65 yr. And their number is constantly increasing. Significant growth was observed in the group of patients with one two or more comorbidities, while no significant difference in mean age between groups without, one with two or more accompanying diseases.

**Conclusions:** The number of advanced urologic intervention such as radical prostatectomy and cystectomy as a whole and as percentage of the total received for treatment. The most frequent underlying diseases in the studied group is hypertension followed by heart failure. Diseases such as chronic bronchitis, chronic obstructive disease, chronic vascular nestatachnost and heart failure over the years surveyed remained relatively constant. Other diseases such as hypertension and diabetes are making significant growth. Patients with two or more comorbidities dominated (53%) in the study group.

**Keywords:** epidemiology and demographic structure urological disease, radical prostatectomy, comorbidity, urologic surgery on elderly patients.

Въпреки процесите на естествен прираст населението на ЕС е застаряващо. През 2009г. процентът на деца 14год. е 15,6%, а този на възраст над 65год. е 17,2 (2)

Таблица №2 Население на ЕС по възраст през 2010 го. на (27 страни членки) (3)

Възраст	% през 2000г.	% през 2010г.
0-14год.	17,2%	15,6%
15-24год.	13,2%	12,1%
25-49год.	36,7%	35,8%
50-64год.	17,2%	19,1%
65-79год.	12,3%	12,7%

3. V.R. Dunev, N.H. Kolev, P.P. Genov. A rare clinical case of penile gangrene in a patient with chronic renal failure and diabetes mellitus. *Urology Case Reports* 23(2019) 108-109, ISSN 2214-4420. (SJR= 0.199)



## Inflammation and infection

# A rare clinical case of penile gangrene in a patient with chronic renal failure and diabetes mellitus

V.R. Dunev<sup>a,\*</sup>, N.H. Kolev<sup>a</sup>, P.P. Genov<sup>b</sup>

<sup>a</sup>Medical University Plevan, "Georgi Kochev" 8A str., 5800, Bulgaria

<sup>b</sup>Dept. of Urology, UMHA, "Kanev", "Nezavisimost" 2 str., Ruse, 7000, Bulgaria

## ARTICLE INFO

**Keywords:**  
Penis  
Gangrene  
Calciphylaxis  
Diabetes

## ABSTRACT

We report here a case of penile gangrene due to penile calciphylaxis in a patient with diabetes mellitus and chronic renal failure. Initially the patient demonstrated dry gangrene of the glans penis, which turned to wet after partial amputation. The main cause of the gangrene was considered to be circulatory insufficiency induced by severe arteriosclerosis. Despite high mortality rate associated with ischaemic penile gangrene aggressive management is recommended for those who are not terminal.

## Introduction

Penile gangrene is a disease difficult to be treated. Its genesis might be infectious, traumatic or vascular. Usually, diabetes mellitus causes vascular changes with subsequent vascular atherosclerosis and chronic renal failure. The calcium-phosphate metabolism is disrupted by small cell vessel calcification in 1–4% of cases.

## Case presentation

A 63-year-old male was admitted to the Clinic of Urology at Medical University Plevan. The patient had a 22-year history of type 2 diabetes mellitus. He had been on insulin therapy since 1998. He reported that at the age of 33 he had survived myocardial infarction. In March 2014, haemodialysis treatment was started because of end-stage renal failure caused by diabetic nephropathy. In 2010, 2012 and 2013, the thumb of his left leg, his right - and left lower leg were amputated, respectively due to diabetic gangrene. In September 2015, he noticed a painless spot on the glans penis, the size of a lentils grain, which gradually grew larger and turned from brown to black [Fig. 1].

The physical examination showed a painful lesion (dry gangrene) on the dorsal part of the glans. Laboratory investigations: The white blood cells count was  $11.2 \times 10^9/L$ . Serum creatinine was  $440 \mu\text{mol/L}$  after haemodialysis, K -  $4.4 \text{ mmol/L}$ . The blood glucose rate was maintained within the range from  $8.7 \text{ mmol/L}$  to  $28 \text{ mmol/L}$ , HbA1c -  $11.69$ . The rates of phosphorus and calcium in blood were  $2.44 \text{ mmol/L}$  and  $1.66 \text{ mmol/L}$ , iCa -  $0.96 \text{ mmol/L}$ , calcium phosphate product  $50.6 \text{ dg/ml}$ , GFR -  $13 \text{ ml/min/1.73m}^2$ . Parathyroid hormone  $24.74 \text{ pg/ml}$ . CT

results: The native CT revealed severe mesenteric vessel calcifications of the abdominal aorta, internal and external iliac arteries, femoral arteries as well as of the peripheral arteries, including the penile vessels [Fig. 2].

## Clinical course

An amputation of the distal half of the penis was performed. Antimicrobial treatment according to the isolated microorganisms from the urine (*E. coli* and *E. faecium*) was started. Seven days after surgery, a wet gangrene, engaging the operative wound and the underlying skin of the scrotum, appeared [Fig. 3].

Necrectomy and amputation of the proximal half of the penis was performed. Cystofix had to be placed because of the periodic intensive haematuria. The wound was left to secondary healing. After 10 days he had sudden death probably due to acute cardiac event and multisystem complications. Histological findings: Penile skin and cavernous bodies with extensive necrosis, central acute absceding inflammatory changes, scattered fresh and old arterial thrombi and microcalcifications, arteriosclerosis.

## Discussion

Penile calciphylaxis is a rare condition. Usually, diabetes mellitus causes vascular changes with subsequent vascular atherosclerosis and chronic renal failure. Secondary hyperparathyroidism is a frequently encountered problem in the management of patients with chronic kidney disease due to hyperphosphatemia and vitamin D deficiency.

\* Corresponding author. "Hristo Botev" 59 str., Plevan, 5800, Bulgaria.

E-mail addresses: [v.dunev@abv.bg](mailto:v.dunev@abv.bg) (V.R. Dunev), [kolevmd@yahoo.com](mailto:kolevmd@yahoo.com) (N.H. Kolev), [genov.p@abv.bg](mailto:genov.p@abv.bg) (P.P. Genov).

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4. N.H. Kolev, V.R. Dunev, Karaivanov M.P., P. Dimitrov. Paratesticular leiomyosarcoma: a clinical case report. Urology Case Reports. Volume 27,2019, 100913, ISSN 2214-4420. (SJR= 0.199)



## Oncology

### Paratesticular leiomyosarcoma: A clinical case report

N.H. Kolev, V.R. Dunev<sup>a,\*</sup>, M.P. Karaivanov, P.C. Dimitrov

Medical University Plevan, "Georgi Kochev" 8A str, 5800, Bulgaria

#### ARTICLE INFO

**Keywords:**  
Paratesticular tumors  
Paratesticular leiomyosarcoma

#### ABSTRACT

We present you a Case of 62 year old man with Paratesticular leiomyosarcoma (LMS) localized to the right scrotal half. Detailed pathological and immunohistochemistry characteristic of the tumor was done. For staging was used the classification of French Federation of Cancer Centres Sarcoma Grading System. The final grading of the tumor is grade 3. Paratesticular LMS is rare identity and serves as a diagnostic and treatment challenge.

#### Introduction

Paratesticular tumors can be categorized as benign (70%) and malignant (30%). Sarcomas of the genitourinary tract are uncommon and represent only 1–2% of all urological malignancies.

Paratesticular LMS is a malignant mesenchymal tumor with smooth muscle differentiation and present 10–30% of all paratesticular sarcomas. 5 year and 10 year disease specific survival rates are 77% and 66%. There is no evidence for genetic abnormality in cases of male patients with paratesticular leiomyosarcoma. This type of tumor spreads by three ways-lymphatic (external iliac, hypogastric, common iliac, retroperitoneal lymph nodes), hematogenous (lungs are most common site), and by local extension.

Paratesticular LMS is difficult to diagnose preoperatively and a definitive diagnosis requires a histologic examination of a resected specimen to observe morphological and immunohistochemical differentiation.

#### Case Presentation

A 62 year old man presented to us with two years history for palpable mass in his right scrotal half growing up slowly without any complaints of pain. On our clinical examination his right scrotal half looks larger than the other one, and the right testis located anterior to the scrotum with hard and unequal mass palpable posteriorly.

Description from scrotal ultrasound was for big mix echogenic mass with location in upper pole of right testis. Tumor markers: AFP, beta-hCG and LDH was negative for testicular tumor. Computed tomography of thorax, abdomen and pelvis showed no data for metastasis or involvement of lymphatic nodes [Fig. 1].

The patient was subjected to right radical inguinal orchiectomy under anesthesia with high ligation of spermatic cord and wide excision of right-sided scrotal tissue.

During operation we found large formation of spermatic cord that not involves the right testis and also we found a prehnal lipoma.

Histopathological result was for malignant tumor occurs from paratesticular zone with smooth muscle differentiation and no evidences for origin from right testis. Sarcoma with dominant streaming construction, build from spindle cells with moderate nuclear polymorphism, scattered typical and atypical mitoses [Fig. 2].

Immunohistochemistry shows that cells were positive for: alpha smooth-muscle actin, focal positive for Desmin and for S100 protein [Fig. 3]. Also there were detected focal and merging necroses.

For staging was used the classification of French Federation of Cancer Centres Sarcoma Grading System:

- Tumor differentiation: Polymorphocellular sarcoma 3 points
- Mitotic count: 15 MF/10 HPF 2 points
- Tumor necrosis: less than 50% necrosis of all tumor 1 point
- Total score of differentiation is 6

The final grading of the tumor is grade 3.

#### Discussion

The first Case of paratesticular sarcoma was reported in 1845 by LeSavage.<sup>1</sup> The most common histological subtypes are liposarcoma (20–32%), LMS (19–32%) and rhabdomyosarcoma (11–24%). Paratesticular LMS can arise from smooth muscle structures such as the wall of the epididymis or vas deferens, the cremaster muscle or the

\* Corresponding author.

E-mail addresses: kolevmd@yahoo.com (N.H. Kolev), v\_dunev@abv.bg (V.R. Dunev), citizen@mail.bg (M.P. Karaivanov), plamen\_dimitrov92@yahoo.com (P.C. Dimitrov).

<sup>1</sup> Present/permanent address: "Hristo Botev" 59 str. Plevan Bulgaria 5800.

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5. Dunev V.R., Kolev N.H., Genov P.P., Sachdeva M., Karaivanov M.P. Classical form of Kaposi sarcoma localized in Penis. Urology Case Reports. Volume 24, 2019, 100856, ISSN 2214-4420. (SJR= 0.199, цитирания - 1)

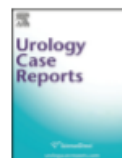
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Inflammation and infection

## Classical form of Kaposi sarcoma localized in penis

V.R. Dunev<sup>a,\*</sup>, N.H. Kolev<sup>a</sup>, P.P. Genov<sup>b</sup>, M. Sachdeva<sup>a</sup>, M.P. Karaivanov<sup>a</sup>

<sup>a</sup> Medical University Pleven, "Georgi Kochev" BA Str., 5800, Bulgaria

<sup>b</sup> UMHA "Kanev" Ruse, "Nesavisimost" 2 Str., 7000, Bulgaria



### ARTICLE INFO

#### Keywords:

Kaposi sarcoma  
Tumor of the penis  
HHV-8

### ABSTRACT

We present you a case of 43 year old man with classical form of Kaposi sarcoma (KS) localized to the Penis who was HIV negative. Detailed pathological and immunohistochemistry characteristic of the tumor was done. Pathology reported it as KS with nodular and polypoid form. Classical form of KS with localization in male genitalia is rare identity and serves as a diagnostic challenge.

### Introduction

Kaposi Sarcoma (KS) was first introduced in 1872 by Moris Kaposi, Hungarian Dermatologist. This tumor was found to be associated with Human Herpes virus 8 (HHV-8) in 1994. There are many forms described in the literature: Classical form, mainly found in adults in Mediterranean region, where frequency of HHV8 infection is very high; Endemic form found in 1990, with aggressive pattern in patients with HIV, and those who underwent organ transplantation (immune-compromised), where both transplanted organ can be a source of HHV-8 or the recipient may be pre-infected. Lesions are usually nodular, red, violet, black colour and may be localized anywhere but primarily engaged to the skin, gastrointestinal tract and the respiratory tract. The growth of the tumor can be either very slow or very fast and aggressive. KS arises from lymphatic endothelium and forms vascular spaces, filled with erythrocytes. Tumor cells are spindle shaped, and the lesion is highly vascularized with irregular blood vessels.

### Case presentation

A 43 year old man was admitted to the Clinic of Urology at Medical University Pleven. Patient presented with history of tumor formation in distal half of the penis, which started before one month and grew rapidly [Fig. 1]. There were no other subjective or objective symptoms, past medical history and operative intervention linked with our pathology. Patient is heterosexual, married and the partner is clinically healthy. Both the partners had no history of an extramarital sex. Detailed physical examination showed non tender, exophytic growth, red-blue in colour with a narrow base, 2 cm in diameter on the foreskin of

the dorsal surface of the penis. There was no palpable enlargement of inguinal lymph nodes and no other pathological finding of external genitalia or anywhere else in the body. Consultation with internal medicine doctor and anesthesiologist did not rule out any other disease. Pre-operative laboratory investigations were found to be normal. Patient underwent circumcision with complete excision of the tumor formation [Fig. 2]. There was 24 months follow-up, during this period patient was found to be healthy without any signs and symptoms.

### Histology

The pathological and immunohistochemistry of the lesion was studied in detail. It was characterized as polyp-like, nodular lesion with focal ulcerations. It consists of spindle shaped cells, forming slit-like vessels grouped in bundles. Erythrocytes were found inside blood vessels with infiltration of perivascular lymphocytes and plasma cells seen as a component of the tumor [Fig. 3]. The tumor cells were positive for CD-34 & D-40 [Fig. 4]. Pathology confirmed it as KS in a HIV negative patient.

### Discussion

KS is a multifocal process with vascular origin which may affect skin and internal organs. Around 20% of all cases have lesions in genitals but only 3% of these patients have primary lesion localized to the penis<sup>1</sup>. First case of KS was described in 1902. In our case, it is localized to the prepuce of the penis as primary isolated lesion, which is exclusively rare classical form of KS.

This form of disease is characteristic of Mediterranean region which

\* Corresponding author.

E-mail addresses: [v.dunev@abv.bg](mailto:v.dunev@abv.bg) (V.R. Dunev), [kolevmd@yahoo.com](mailto:kolevmd@yahoo.com) (N.H. Kolev), [genov\\_p@abv.bg](mailto:genov_p@abv.bg) (P.P. Genov), [manish191@gmail.com](mailto:manish191@gmail.com) (M. Sachdeva), [citizen@mail.bg](mailto:citizen@mail.bg) (M.P. Karaivanov).

<sup>1</sup> Present/permanent address: "Hristo Botev" 59 str., Pleven, 5800, Bulgaria.

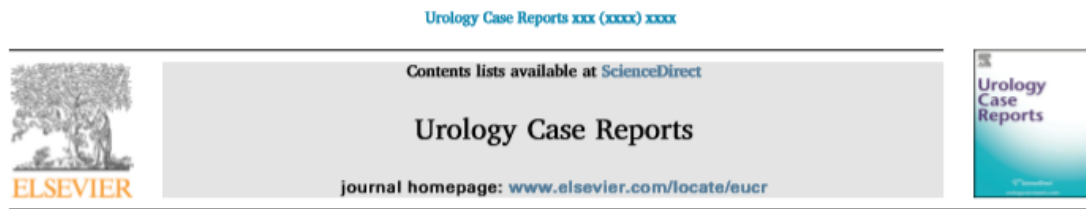
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6. Dunev V.R., Kolev N.H., Genov P.P. Late results of bilateral scrotal flap. Urology Case Reports. Volume 27, 2019, 100920, ISSN 2214-4420. (SJR= 0.199)



Trauma and reconstruction

## Late results of bilateral scrotal flap

V.R. Dunev<sup>a,\*</sup>, N.H. Kolev<sup>a</sup>, P.P. Genov<sup>b</sup>

<sup>a</sup> Medical University Pleven, "Georgi Kochev" 8A str, 5800, Bulgaria

<sup>b</sup> UMHA "Kanev" Ruse, Dept. of Urology, "Nesavisimost" 2 str, 7000, Bulgaria

### ARTICLE INFO

**Keywords:**  
Paraffinoma penis  
Bilateral scrotal flap

### ABSTRACT

We present you a late result of 27 year old man, who was operated in 2009 using bilateral scrotal flap (BSF) for paraffinoma localized to the penis, scrotum and pubic area. In 2010 the patient was operated again, because horseshoe relapse engaged the penis base, doing simple excision. Ten years later, the patient have excellence functional and cosmetic results.

### Introduction

Paraffinoma of male genitalia (PMG) is a chronic granulomatous reaction to a "foreign body" developed after injection of exogenous substances. Injection of liquid paraffin in order to enlarge the penis is still common practice in Bulgaria. It led to the so-called paraffinoma - granuloma type "foreign body", leading to a number of functional and cosmetic problems. The only effective treatment for this condition is operative.

More than 130 patients with PMG have been operated in Department of Urology, University Hospital "Dr. G. Stranski", Pleven, Bulgaria in the last 12 years. The main surgical techniques used for the plastic reconstruction of the penis are: Simple excision, Bilateral scrotal flaps, Modified Cecil's and plastic with Split-thickness skin grafts (STSG).

### Case presentation

An 18 year old man was admitted to the Clinic of Urology at Medical University Pleven in 2009. A year ago, he was injected 20 ml. liquid paraffin in his penis. The symptoms were pain, difficult erection and swelling. Detailed physical examination showed tender, granulomatous tumor formations engaging foreskin, shaft of the penis, pubic area and scrotum. There was no palpable enlargement of inguinal lymph nodes and no other pathological finding of external genitalia or anywhere else in the body. We removed completely the skin and subcutaneous tissue infiltrated by the foreign material. We used BSF for method of resurfacing. There were no complications and 7 days later the patient was discharged (Fig. 1).

After 9 months the patient was admitted again with horseshoe

relapse around the base of the penis, which started before 3 weeks and grew rapidly. There were palpable enlargement of inguinal lymph nodes and no other pathological finding of external genitalia or anywhere else in the body. Pre-operative laboratory investigations were found to be normal. Patient underwent simple complete excision of the tumor formation and after 3 days was discharged (Fig. 2).

During 9 years follow-up patient was found to be healthy without any signs and symptoms. He has excellence cosmetic and functional recovery (Fig. 3).

### Discussion

The use of foreign material (Paraffin or Vaseline) injection for penile augmentation makes a lot of serious complications: disfigurement, chronic and unhealed ulcer, painful erection, the inability to achieve sexual activities and satisfaction. The definite treatment is complete surgical excision of skin and subcutaneous tissue infiltrated by the foreign material and resurfacing of denuded penis. We use four surgical techniques for the plastic reconstruction of the penis: Simple excision, Bilateral scrotal flaps, Modified Cecil's and plastic with meshed and unmeshed STSG.

The scrotal skin has high elasticity and seems to be a good material for penile coverage, despite its hairy nature, but patients with hirsute scrotal may be contraindicated. Results were successful and without any major complications. The reconstructed penis had immediate postoperative tactile sensibility.<sup>1</sup> The blood supply of musculocutaneous scrotal flaps origin from anterior scrotal artery, which is branch of the external pudendal artery and running in the internal spermatic plane. Anterior scrotal artery supplied scrotal skin 62.5–100% (mean 75.9%) in anteroposterior dimension and 66–100% (mean 88%) in

\* Corresponding author.

E-mail addresses: [v\\_dunev@abv.bg](mailto:v_dunev@abv.bg) (V.R. Dunev), [kolevmd@yahoo.com](mailto:kolevmd@yahoo.com) (N.H. Kolev), [genov\\_p@abv.bg](mailto:genov_p@abv.bg) (P.P. Genov).

<sup>1</sup> Present/permanent address. "Hristo Botev" 59 str. Pleven Bulgaria 5800.

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7. Boyan Stoykov, Nikolay Kolev, Vladislav Dunev, Pencho Genov. A rare case of iatrogenic vesicovaginal fistula arising from a forgotten gauze strip during Caesarean section. *Urology Case Reports*. Volume 28, 2020, 101061, ISSN 2214-4420. (SJR = 0.199)

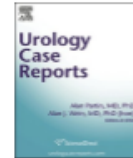
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Inflammation and infection

## A rare case of iatrogenic vesicovaginal fistula arising from a forgotten gauze strip during Caesarean section

Boyan Stoykov<sup>a,\*</sup>, Nikolay Kolev<sup>a</sup>, Vladislav Dunev<sup>a</sup>, Pencho Genov<sup>b</sup>

<sup>a</sup> Department of Urology, Medical University Pleven, Bulgaria

<sup>b</sup> Department of Urology, UMHA, Ruse, Bulgaria

### ARTICLE INFO

#### Keywords:

Iatrogenic vesicovaginal fistula  
Forgotten gauze strip

### ABSTRACT

The incidence of iatrogenic vesicovaginal fistulas in women after gynecological surgery is 82%, as hysterectomy being the most common cause for them - 88%. We presented a rare case of iatrogenic vesicovaginal fistula resulting from a series of errors and forgotten gauze strip in a 26-years-old woman after a third Caesarean section.

### Introduction

According to the literature, the main causes of iatrogenic vesicovaginal fistulas in women are gynecological surgeries, obstetric interventions, radiation therapy, injuries or burns. Of all gynecological operations, hysterectomy is the most common cause of vesicovaginal fistulas. When the hysterectomy is performed with abdominal access, the expectation of iatrogenic bladder injury is increased 3 times. The incidence of bladder injury during abdominal hysterectomy is 1.0%, and vesicovaginal fistulas are formed in 0.1–0.2% of cases, which are usually associated with unrecognized intraoperative trauma and incorrect suturing.

### Case report

We present a rare case of iatrogenic vesicular fistula in a 26-year-old woman after a third Caesarean section, as a result of a series of errors that occurred in an emergency. At 34 weeks of gestation, the patient was admitted to the maternity ward with regular uterine contractions and bleeding from the genitals. Due to the previous two operative abdominal deliveries and ultrasound diagnosed placenta previa, a third emergency Caesarean section was undertaken. After extraction of the fetus, it was found that the placenta was tightly adherent to the uterine musculature - placenta previa percreta. Due to the impossibility of complete removal of the placenta, hypotension of the uterus and massive intraoperative blood loss, hysterectomy was undertaken. The solid adhesions in the pelvis, caused by the previous two Caesarean sections, are the cause of iatrogenic damage to the entirety of the bladder wall. Operators repair

the defect by stitching the bladder wall in two floors. Stitching performed by a gynecological team without calling a urologist (error 1), and both bladder floors having a running stitch without knowing if there is a urinary infection (error 2). After the final hemostasis was completed, the abdominal wall is restored. Before the abdominal wall was closed there was no leak test (error 3) and the straps were not listed correctly (error 4). The patient was discharged from the hospital in good condition, without complaint with a urethral catheter for 1 month. Three months later, the woman reported subfebrile fever and dysuric disorders. Despite antibiotic treatment, the symptoms persisted. There was also a leakage of urine through the vagina, accompanied by an unpleasant smell. In a microbiological testing *E. coli*, *S. aureus* and *Enterococcus* spp. were isolated. A CT scan and cystoscopy diagnosed the presence of a foreign body (probably a gauze strip) located in the bladder and vagina, as well as an existing vesicovaginal fistula. Fig. 1 It is decided to extract the gauze strip through the vagina under X-ray and cystoscopic control and to place a urethral catheter. Fig. 2, Fig. 3 The patient was planned for a plastic surgery to repair the bladder wall and vagina after four months.

### Discussion

According to most authors, the main causes of iatrogenic vesicovaginal fistulas in women are gynecological surgeries - 82%, obstetric interventions - 8%, radiation therapy - 6% and injuries or burns - 4%. Of all gynecological surgeries, hysterectomy is the most common cause of vesicovaginal fistulas - 88%.<sup>1</sup> When it is performed with abdominal access, the probability of iatrogenic bladder injury is increased 3 times. The incidence of bladder injury during abdominal hysterectomy is

\* Corresponding author. Department of Urology, "Saint Marina" Hospital, Medical University Pleven, Balgarska avia Street, Plevna, 5800, Bulgaria.

E-mail address: [bojanatanasovvv@abv.bg](mailto:bojanatanasovvv@abv.bg) (B. Stoykov).

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8. Pencho Genov, Despina Georgieva, Greta Koleva, Nikolay Kolev, Vladislav Dunev, Boyan Stoykov. Management of Leydig cell tumors of the testis- a case report. *Urology Case Reports*. Volume 28, 2020, 101064, ISSN 2214-4420. (SJR= 0.199)

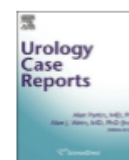
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Oncology

## Management of Leydig cell tumors of the testis-a case report

P.P. Genov<sup>a,\*</sup>, D.P. Georgieva<sup>a</sup>, G.V. Koleva<sup>a</sup>, N.H. Kolev<sup>b</sup>, V.R. Dunev<sup>b</sup>, B.A. Stoykov<sup>b</sup>

<sup>a</sup> University of Ruse "Angel Kanchev" Ruse, Bulgaria, 2 "Nesavisimost" str, 7000, Bulgaria

<sup>b</sup> Medical University Pleven, Bulgaria, "Georgi Kochev" str, 5800, Bulgaria

### ARTICLE INFO

#### Keywords:

Leydig cell tumors  
Radical orchiectomy  
Testosterone  
Immunostaining

### ABSTRACT

We report 1 case of Benign Leydig cell tumor. A 45-year-old male was admitted to the Urology department with a large painless mass in the right testis of 1 year duration. The patient underwent radical high right orchiectomy, with a preliminary diagnosis of right testicular tumor. On the basis of the pathologic and immunohistochemical findings, the testicular mass was diagnosed as a benign Leydig cell tumor. Long-term follow-up is necessary to exclude recurrence or metastasis and also the endocrine profile and imaging investigations need to be repeated periodically.

### Introduction

Testicular tumors represent 1%–1.5% of all tumors in men. Leydig cell tumors (LCT) are rare, constituting 1% of testicular tumors. There are limited small series of LCT reported in the literature. About 3% cases of LCT are bilateral, while 10% are malignant with metastatic forms, preferably to the inguinal lymph nodes and extranodal organs, including the liver, lungs, and bones. In male adolescents, these hormone-secreting interstitial tumors usually are associated with precocious puberty; the clinical features and hormonal levels of these tumors are varied in adults. Most Leydig cell tumors are benign; but still a radical orchiectomy is currently used as the standard therapy for these tumors. Histologically, the tumor consists of the proliferation of large polygonal tumor cells with granular eosinophilic cytoplasm. LCT has a range of imaging manifestations, some overlapping with other testicular tumors. Due to that, it is difficult to make accurate diagnosis without immunohistochemistry.

### Case presentation

In April 2019, a 45-year-old male was admitted to the Urology department with a large painless mass in the right testis of 1 year duration. Accordingly to patient, one month before admission, the lesion started to grow. On physical examination, the right testis was 6.5 × 3.0 cm in size, with a palpable tumoral mass of approximately 3.5 × 2.0 cm in size, also the patient had a regular pulse of 78 beats/min, a

temperature of 36.9 °C, and a respiratory rate of 18 breaths/min. No other signs, including gynecomastia or swelling of superficial lymph nodes were observed. The penis and pubic hair were normally developed.

Patient's routine laboratory results such as complete blood cell count, renal function tests, liver function tests, and urinalysis were negative. Tumor markers such as alpha-fetoprotein (AFP),  $\beta$ -human chorionic gonadotropin ( $\beta$ -hCG) and lactate dehydrogenase (LDH) were negative, and hormonal investigations like testosterone, prolactin and follicle stimulating hormone (FSH) were in normal ranges. A testicular ultrasound examination demonstrated a mixed echogenic space occupying lesion involving the half of the right testis with increased vascularity and some cystic areas.

The patient underwent radical high right orchiectomy, with a preliminary diagnosis of right testicular tumor and the specimen has been submitted for histopathological examination. Postoperative pathology showed that the tumor had cells in nests and trabeculae with chailinized and edematous stroma, without hemorrhage and necrosis or vascular invasion. The tumor nuclei were monomorphic, oval-shaped with passing nucleoli, finely dispersed chromatin and no mitoses were found (Fig. 1). The spermatic cord, scrotal skin, and surgical margins were free of malignancy. The immunostaining showed that the tumor cells were positive for inhibin and negative for pan-cytokeratin, calretinin and sinaptophysin (Fig. 2). On the basis of the pathologic and immunohistochemical findings, the testicular mass was diagnosed as a benign Leydig cell tumor.

\* Corresponding author. UMHAT "Kanev" Ruse, Bulgaria, "Nesavisimost" 2 str, 7000, Bulgaria.

E-mail addresses: [genov\\_p@abv.bg](mailto:genov_p@abv.bg) (P.P. Genov), [gpgeorgieva@uni-ruse.bg](mailto:gpgeorgieva@uni-ruse.bg) (D.P. Georgieva), [vkoleva@uni-ruse.bg](mailto:vkoleva@uni-ruse.bg) (G.V. Koleva), [kolevmd@yahoo.com](mailto:kolevmd@yahoo.com) (N.H. Kolev), [v\\_dunev@abv.bg](mailto:v_dunev@abv.bg) (V.R. Dunev), [atanasovmd@yahoo.com](mailto:atanasovmd@yahoo.com) (B.A. Stoykov).

<sup>1</sup> Present/permanent address: 97 "Aleksandrovska" str. Ruse, Bulgaria, 7000.

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9. Pencho Genov, Ivelin Kirilov, Irinka Hristova, Nikolay Kolev, Vladislav Dunev, Boyan Stoykov. Management and diagnosis of Nutcracker syndrome- a case report. *Urology Case Reports*. 2019, 101103, ISSN 2214-4420. (SJR= 0.199)

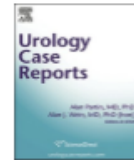
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Functional medicine

## Management and diagnosis of Nutcracker syndrome-a case report



P.P. Genov<sup>a,\*</sup>, I.V. Kirilov<sup>a</sup>, I.A. Hristova<sup>a</sup>, N.H. Kolev<sup>b</sup>, V.R. Dunev<sup>b</sup>, B.A. Stoykov<sup>b</sup>

<sup>a</sup> University of Ruse "Angel Kanchev", Ruse, 8 "Studentska" str.7000, Bulgaria

<sup>b</sup> Medical University Pleven, "Georgi Kochev" BA str. 5800, Bulgaria

### ARTICLE INFO

#### Keywords:

Nutcracker syndrome  
Hematuria  
Left renal vein  
Aorto-mesenteric region

### ABSTRACT

Nutcracker syndrome (NCS), also known as left renal vein (LRV) entrapment syndrome is a condition that leads to stenosis of the aorto-mesenteric region of the LRV, with dilatation of the distal portion of the vessel. A 43-year-old woman was admitted to the Urology department with symptoms of intermittent painless hematuria and mild to moderate left lumbar pain for the last three months. The patient underwent cystoscopy under general anesthesia. Bloody urine was noticed to appear from the left ureter ostium and an intra-venous contrast CT of the abdomen was performed. The final diagnosis was anterior Nutcracker syndrome.

### Introduction

Nutcracker syndrome (NCS), also known as left renal vein (LRV) entrapment syndrome is a condition that leads to stenosis of the aorto-mesenteric region of the LRV, with dilatation of the distal portion of the vessel. The most common characteristic clinical signs and symptoms are intermittent hematuria, proteinuria, flank pain, pelvic congestion in females, and varicocele in male patients, alongside with diagnostic imaging of the anatomy associated with the syndrome.

### Case presentation

In June 2019, a 43-year-old woman was admitted to the Urology department with symptoms of intermittent painless hematuria and mild to moderate left lumbar pain for the last three months. The patient has no other symptoms like dysuria, constipation and etc. On physical examination the patient had a regular pulse of 74 beats/min, a temperature of 36.7 °C, and a respiratory rate of 17 breaths/min, also the abdomen was palpable painless. On the ultrasonography no pathological finding were observed. Patient's routine laboratory results such as complete blood cell count, renal function tests, liver function tests were in normal ranges. Urine analysis showed 15–20 Er/Hpf and no proteinuria.

The patient underwent cystoscopy under general anesthesia. The bladder mucosa was normal without any pathological findings. Bloody urine was noticed to appear from the left ureter ostium and a decision

was made to be performed an intra-venous contrast CT of the abdomen.

The curved CT reformed image during late arterial phase demonstrates the site of compression/red arrow/of the left renal vein between the obscured angle of the superior mesenteric artery (SMA) and the underlying abdominal aorta. The difference between the diameters of the proximal portion compared to the diameter after the point of compression of left renal vein was also noted (Fig. 1). The curved image is also demonstrating Beak Sign at the aorto-mesenteric portion of the LRV – representing with the severe narrowing at the site of compression and the hilar dilatation of the vein. Furthermore LRV diameter ratio of antero-posterior to aorto-mesenteric portion was  $\geq 4.9$  (Fig. 2). Sagittal MPR in arterial phase shows decreases angle between SMA and aorta/red arrow/- at range of 29°/measurement not shown here/and the severe narrowing of the LRV at the aorto-mesenteric portion green arrow/Beak Sign/(Fig. 3). The final diagnosis was anterior Nutcracker syndrome.

The patient refuse suggested operative treatment and due to that reason a conservative treatment with angiotensin converting enzyme inhibitor- Lisinopril 5 mg and Aspirin 100 mg daily were commenced, to improve renal perfusion. Also the patient was advised to gain weight and expecting to increase in retroperitoneal adipose tissue, and hence reduction in LRV tension. Furthermore the patient was advised to be followed up every 6 months with a control examinations and if needed a intra venous CT scan.

\* Corresponding author. UMHAT "Kanev" Ruse, 2 "Nezavisimost" str.7000, Bulgaria.

E-mail addresses: [genov\\_p@abv.bg](mailto:genov_p@abv.bg) (P.P. Genov), [nicho442@gmail.com](mailto:nicho442@gmail.com) (I.V. Kirilov), [ihristova@uni-ruse.bg](mailto:ihristova@uni-ruse.bg) (I.A. Hristova), [kolevmd@yahoo.com](mailto:kolevmd@yahoo.com) (N.H. Kolev), [v\\_dunev@abv.bg](mailto:v_dunev@abv.bg) (V.R. Dunev), [atanasovmd@yahoo.com](mailto:atanasovmd@yahoo.com) (B.A. Stoykov).

<sup>1</sup> 97 "Aleksandrovska" str. Ruse Bulgaria 7000.

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10. Boyan Stoykov, Nikolay Kolev, Vladislav Dunev, Pencho Genov. Torsion of the testis with perineal ectopy, Urology Case Reports, 2019, 101087, ISSN 2214-4420. (SJR= 0.199)

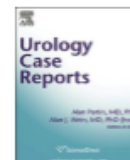
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Pediatrics

## Torsion of the testis with perineal ectopy

Boyan Stoykov<sup>a,\*</sup>, Nikolay Kolev<sup>a</sup>, Vladislav Dunev<sup>a</sup>, Pencho Genov<sup>b</sup>

<sup>a</sup> Department of Urology, Medical University Plevan, Bulgaria

<sup>b</sup> Department of Urology, UMHAT, Ruse, Bulgaria

### ARTICLE INFO

#### Keywords:

Perineal ectopic testis  
Congenital anomaly  
Orchiopexy

### ABSTRACT

Congenital testicular anomalies affect about 5% of newborn boys. Testicular torsion is a rare anomaly that occurs in 1 in 4000 men under the age of 25. Perineal ectopia is an even more rare anomaly. It occurs in less than 1% of all cases of cryptorchidism. In this study, we present a rare case of testicular torsion with perineal ectopia in a boy of 18 months. To establish the anomaly, we used Doppler ultrasound and MRI. We performed inguinal exploration with subsequent detorsion testis and orchiopexy using the dartos pouch technique.

### Introduction

It is known that, congenital anomalies of the testicle differ in number, structure and position. Torsion of the testicle is a rotation of its vascular pedicle, which embarrasses the normal blood supply to the testis and the scrotal content. It is most common between the ages of 12 and 18, but can affect any age, even before birth. Testicular ectopia is observed when the testicle, after passing through the inguinal canal, does not fall into the scrotal sac but into the structures around it.

### Case report

We present a rare case of left testicular torsion with perineal ectopia in a child aged 1.5 years. When the boy has been dressed immediately after bathing, the parents noticed a bump next to the left scrotal half, which was not present before the morning toilet. Although there were no direct complaints, the parents urgently took the child to a urologist. Local status revealed a lack of testis in the left scrotal half and in the inguinal canal as well as the presence of swelling directly under the left scrotum (Fig. 1). Laboratory tests, Doppler ultrasound and MRI of the abdomen and pelvis were immediately assigned. Laboratory tests have no detected abnormalities. The conclusion of Doppler ultrasound and MRI was torsion of the left testis with perineal dystopia (Fig. 2). Here is a point to note that we do not routinely use MRI to establish testicular torsion. We did this study because, on the one hand, the child was diagnosed with an active respiratory tract infection (contraindication for surgical treatment), and on the other, there was no convincing evidence from physical examination and Doppler ultrasound for this diagnosis. We performed urgent inguinal exploration, where we detected the

presence of perineally located testis with extravaginal torsion of 360° (Fig. 3). Detorsion and orchiopexy were performed using the dartos pouch technique. The child was discharged the next day without any complaints.

### Discussion

Testicular torsion is two types: extravaginal, which occurs in infancy and it's frequency is 5% and intravaginal, which occurs in adults with frequency of 95%. The testicle can be rotated from 180 to 720°. The more the testicle is rotated, the faster the lesions occur in it. As a rule, if the testicle is rotated 360° to 6 hours, it can be saved in 90% of cases, to 12 hours - in 50% and to 24 hours - in 10% of cases. The most common causes of testicular torsion are the long spermatic cord leading to hypermobile testis, abnormalities in the location of the testis, loose and abnormal connections between testis and adnexae and others. Five types of ectopy have been described in the literature: perineal, suprapubic, femoral, the superficial inguinal and the opposite side of the scrotum ectopy.<sup>1</sup> The superficial inguinal ectopy is most common in 75% of cases and the least common is the perineal ectopy in 1% of cases.<sup>2</sup> The first description of perineal ectopia was made in 1786 by John Hunter.<sup>3</sup> In 1937, Campbell managed to find 102 cases in the literature. Jones and Libental in 1938 claim to be the one hundred and third case. They find that 22 cases have been reported in the previous 32 years alone. Cecil reported in 1947 the one hundred and fourth case. Lockwood claims that the entire responsibility for ectopia of the testicle lies with the gubernaculum, who directs the testicle to its final destination. Sonneland takes a different view and believes that atrophy of the neck of the scrotum is an important cause of testicular retention or ectopia. R. H.

\* Corresponding author. Department of Urology, "Saint Marina" Hospital, Medical University Plevan, Balgarska aviaztzia Street, Plevan, 5800, Bulgaria.  
E-mail address: [atanasovmd@yahoo.com](mailto:atanasovmd@yahoo.com) (B. Stoykov).

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11. P.P. Genov, N.H. Kolev, V.R. Dunev. A rare case of Bellini duct carcinoma. Urology Case Reports, Volume 25, 2019, 100899, ISSN 2214-4420. (SJ<sub>R</sub>= 0.199)

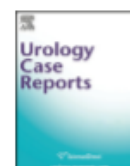
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### Oncology

## A rare case of Bellini duct carcinoma

P.P. Genov<sup>b,\*</sup>, N.H. Kolev<sup>a</sup>, V.R. Dunev<sup>a</sup>

<sup>a</sup> Medical University Pleven, UMHA "Kanev" Ruse, "Nesavisimost" 2 str., 7000, Bulgaria

<sup>b</sup> Dept. of Urology, Medical University Pleven, "Georgi Kochev" 8A str., 5800, Bulgaria



### ARTICLE INFO

#### Keywords:

Bellini duct carcinoma  
Renal cell carcinoma  
Radical nephroureterectomy

### ABSTRACT

We present a rare clinical case of renal cell carcinoma from the collection tubules-carcinoma of Bellini. A 69 years old patient, enters in our department with symptoms of massive hematuria. From the studies carried out: blood tests, CT and cystoscopy there are no data of neo process of lower urinary tract, but shows horseshoe-shaped kidney, cystic deformation of the left kidney and aortic dissection. A left radical nephroureterectomy was performed, with preoperative diagnosis of renal tumor at stage T3. The histopathological diagnosis was Bellini duct carcinoma of papillary tubular type. The patient currently remains disease-free.

### Introduction

The carcinoma of the collection tubules is rare, and its incidence is less than 1% of malignant neoplasms of the kidney. Most often, its origin is from the epithelial cells of the proximal collection tubules, but it can lead to its origins from the distal collection tubules. It is located in the central areas of the kidney (medulla), growing to the cortex and renal pelvis. It is characterized by high malignancy, early metastasis and poor prognosis.

### Case presentation

A 69 years old patient was admitted in our department with hematuria, anemic syndrome, pre-cardiac surgery on the occasion of surviving aortic dissection. Performed diagnostic procedures were ultrasound which visualized a solid tumor formation on the left kidney with irregular shape, in the made CT, a horseshoe-shaped kidney was found, and a formation of a left kidney with involvement of the adrenal gland and the same was in a function Fig. 1. A cystoscopy was performed and bleeding from the left ureteral ostium was seen. The patient was placed on a clinical discussion and decided on a radical transperitoneal nephroureterectomy with preoperative diagnosis-tumor of left kidney T3 stage.

Clinical course: Intraoperatively the diagnosis from the CT scan was confirmed and radical nephroureterectomy was performed, with cutting of the parenchymal bridge above the aorta. A kidney with a pronounced perinephric reaction was found near the aorta. After removing the kidney, macroscopic is found a kidney with cartilage density. After

cutting the kidney a tumor formation was seen with a grayish-coloured color, originating from the medullary part and infiltrating the cortex and the renal pelvis. There were ascended formations, without necrosis and haemorrhages. The kidney was sent for histological examination. The sent material confirms the preoperative and macroscopic diagnosis of carcinoma of the collection tubules-Bellini duct carcinoma, with pronounced desmoplastic stromal reaction with hyalinization and nuclei of ossification, pronounced cellular atypia of the epithelium of the collection tubules. Immunohistochemical found a strong positive signal for cytokeratin 7, 34 Be12, moderate intensity of EMA, and negative reaction for vimentin Fig. 2.

The postoperative clinical course and recovery was good, and the patient was currently alive and disease free, 12 months after surgery.

### Discussion

Malignant neoplasms of the kidney represent about 3% of all malignant tumors in human, the most frequent option is kidney cell carcinoma-about 85%–90%. The remaining 10%–15% are atypical and various, assuming heredity for their development. These include: Carcinoma of the collection ducts (Bellini cancer), urinary carcinoma, Metanephroma adenosacralis, embryonic adenoma and sarcomas.<sup>1</sup>

The carcinoma of the collection tubules accounts for about 1% of all neoplasms of the kidney. More than 100 cases have been described, which makes it clear that it is observed in an age range of 18–83 years, with a male-to-female ratio of 2:1. The first report on Bellini carcinoma originating from the epithelium of the collection tubules was written by Mancilla-Jimenez, based on atypical hyperplastic change in renal

\* Corresponding author.

E-mail addresses: [genov\\_p@abv.bg](mailto:genov_p@abv.bg) (P.P. Genov), [kolevmd@yahoo.com](mailto:kolevmd@yahoo.com) (N.H. Kolev), [v\\_dunev@abv.bg](mailto:v_dunev@abv.bg) (V.R. Dunev).

<sup>1</sup> Present/permanent address: 97 "Aleksandrovskia" str. Ruse Bulgaria 7000.

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12. P.P. Genov, N.H. Kolev, V.R. Dunev. Premature ejaculation-operative management after failure of conservative treatment. *Urology Case Reports*, Volume 26, 2019, 100937, ISSN 2214-4420. (SJR= 0.199)

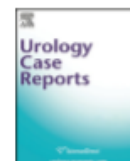
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Andrology and fertility

## Premature ejaculation-operative management after failure of conservative treatment



P.P. Genov<sup>a,\*</sup>, N.H. Kolev<sup>b</sup>, V.R. Dunev<sup>b</sup>

<sup>a</sup> UMHAT "Kanev" Ruse, "Nesavisimost" 2 str., 7000, Bulgaria

<sup>b</sup> Medical University Pleven, "Georgi Kochev" 8A str., 5800, Bulgaria

### ARTICLE INFO

#### Keywords:

Premature ejaculation  
Micro surgical denervation of penis  
Circumcision

### ABSTRACT

We report 1 case of microsurgical denervation of penis in men with lifelong premature ejaculation after failing to be treated conservatively. Although premature ejaculation is the most common sexual dysfunction in men, it is not well studied. Our aim was to investigate Micro-surgical denervation of penis (MSDP) as a method of treatment in men with lifelong PE after failure of different conservative treatment and to analyse the results. Much improving of ejaculatory control, distress, bother and IELT were identified from PEDT and PEP questionnaires. Furthermore investigations are needed to prove the role of operative treatment in men with lifelong PE.

### Introduction

Although premature ejaculation (PE) is the most common sexual dysfunction in men, it is not well studied. Our aim was to investigate Micro-surgical denervation of penis (MSDP) as a method of treatment in men with lifelong PE after failure of different conservative treatment and to analyse the results.

### Case presentation

1 case of microsurgical denervation of penis was performed in 23 year old man with lifelong premature ejaculation after failing to be treated conservatively. The patient was receiving SSRI on demand treatment for 6 months and was using topical anesthetics also for 3 months without any sufficient effect. The patient was followed up for 12 months to assessed the long term efficacy of the method. Evaluation of penile sensitivity was performed at 6 and 12 months after the operation, also Premature ejaculation diagnostic tool (PEDT), Premature ejaculation profile (PEP), International index of erectile function-5 (IIEF-5) were identified.

Before operation, the patients underwent the so-called "Lidocaine test" by making at least 3–5 sexual intercourse using a condom with an anesthetic or lidocaine spray 15–30 min before sexual intercourse. If in these cases an increase in the time to reach ejaculation and erection satisfies the patient, it is considered that the test is positive and can proceed to surgery.

The method we used consisted in a circular incision on the skin at the level of the Corona glandis, with subsequent disaggregation and immobilization of the skin of 4–5 cm to the base of the penis, which gives us access to free sensory nerve branches of n. dorsalis penis. In the main type of innervation, when the diameter of the nerves is 2–3 mm after their interruption, both ends are sutured with 7/0 polypropylene of an intrafascicular thread. With a reticular type of innervation, when there are multiple nerve endings of up to 0.5 mm in size, the imposition of suturing is impossible. In this case, an interruption of the maximum number of nerves is applied without their recovery. The operative intervention ends with the Circumcision in order to improve the effect of MSDP. The operation is performed with the use of magnifying glasses with a four-fold increase [Fig. 1].

As a result of the surgical intervention, anesthesia of the glans penis has occurred and the initial recovery of the normal sensitivity appears after 2–3 months. The complete recovery of sensitivity is achieved within 6–8 months after surgical procedure. Such temporary exclusion of the peripheral unit of the ejaculatory reflex results in a significant increase in the number of frictions and the time to ejaculation. It allows the patients to develop a sustained tendency for a normal duration of sexual contact through the possibility of suppression and better control over ejaculation due to reduced peripheral stimulation.

Clinical course: The mean PEDT score was 19 preoperatively and goes down to 9 at 6-th month timepoint and respectively to 7, 12 months after surgery, showing the possible absence of symptoms of premature ejaculation. The mean IIEF-5 score was 23 before MSDP and

\* Corresponding author. 97 "Aleksandrovska" str. Ruse, 7000, Bulgaria.

E-mail addresses: [genov\\_p@abv.bg](mailto:genov_p@abv.bg) (P.P. Genov), [kolevmnd@yahoo.com](mailto:kolevmnd@yahoo.com) (N.H. Kolev), [v\\_dunev@abv.bg](mailto:v_dunev@abv.bg) (V.R. Dunev).

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13. Nikolay Kolev, Pencho Genov, Vladislav Dunev, Boyan Stoykov. A rare case of extramedullary hematopoiesis in adrenal mass. *Urology Case Reports*, Volume 30, 2020, 101120, ISSN 2214-4420. (SJR= 0.199)

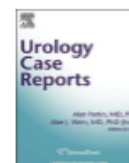
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Oncology

## A rare case of extramedullary hematopoiesis in adrenal mass

N.H. Kolev<sup>a,\*</sup>, P.P. Genov<sup>a,\*</sup>, V.R. Dunev<sup>b</sup>, B.A. Stoykov<sup>b</sup>

<sup>a</sup> University of Ruse "Angel Kanchev" Ruse, 8 "Studentska" str, 7000, Bulgaria

<sup>b</sup> Medical University Plevna, "Georgi Kochev" 8A str, 5800, Bulgaria

### ARTICLE INFO

#### Keywords:

Extramedullary hematopoiesis  
Adrenal gland  
Haemoglobinopathies

### ABSTRACT

Extramedullary hematopoiesis (EMH) is a compensatory mechanism for deficient formation or function of red blood cells. Very rarely, extramedullary hematopoiesis is finding out in the kidneys as well as adrenals. We present a 50 year old man, who was admitted in the Urology Department with symptoms of renal colic. A contrast enhanced computed tomography (CT) of the abdomen and pelvis revealed right adrenal lesion of 80/79 mm in coronary size. The final diagnosis was myelolipoma of the right adrenal gland. We presented a rare case of adrenal tumor mass in patient without any haematological disease that requires surgical excision.

### Introduction

Extramedullary hematopoiesis (EMH) is a compensatory mechanism for deficient formation or function of red blood cells. It occurs most often due to hemolytic anemias such as thalassemia, hereditary spherocytosis and sickle cell anemia. It also could be seen in prolonged iron deficiency anemia, myelofibrosis, polycythemia, leukemia and lymphoma. Most commonly it occurs in the spleen, liver and lymph nodes and less frequently it is detected in the lung, pleura, breast, thymus, small bowel and central nervous system. Very rarely, extramedullary hematopoiesis is finding out in the kidneys as well as adrenals.

### Case presentation

We present a 50 year old man, who was admitted in the Urology Department with symptoms of renal colic. Laboratory investigations showed hemoglobin 122 G/L, WBC count  $7.4 \times 10^9$  G/L, platelet count  $180 \times 10^9$  G/L, MCV 64.7 fL, MCH 20.8 pg. The results from biochemical investigations were: serum bilirubin 13.5  $\mu$ mol/L, conjugated bilirubin 2.5  $\mu$ mol/L, blood urea 5.5 mmol/L, serum creatinine 112.0  $\mu$ mol/L, serum calcium 2.0 mmol/L, serum potassium 5.6 mmol/L, serum sodium 135.0 mmol/L, alanine aminotransferase 26.1 U/L, aspartate aminotransferase 21.3 U/L. Tests for hepatitis C virus (anti HCV antibody) and HIV antibodies (Anti HIV-1,2), serum HBsAg and HBe antibody were negative. Urinalysis in sediment, showed many leukocytes and erythrocytes.

From abdominal sonography left suprarenal solid mass in size of 8.5

$\times$  8.2 cm, with heterogenous ecostructure was detected. A contrast enhanced computed tomography (CT) of the abdomen and pelvis revealed right adrenal lesion of 80/79 mm in coronary size- heterogeneous with presence of adipose tissue centrally up to 60 HU and denser sections peripherally up to 40 HU, replacing the gland almost completely (Fig. 1).

Because of nephrosclerosis of the right kidney and loss of function, a laparoscopic right radical nephron-adrenalectomy was performed. Macroscopically encapsulated tumor with a soft consistency of 9 cm in diameter was found.

Histopathologic evaluation revealed a tumor mass composed of mature adipose tissue with extensive hemorrhages, including haemopoietic islands with megakaryocytes. Lymphocytic infiltrates are established to the extent of lymphatic follicles with germinal centers and foci of necrosis. The final diagnosis was myelolipoma of the right adrenal gland (Fig. 2).

Control examination and CT scan was recommended 6 months after surgery and also monthly evaluation of his peripheral blood count.

### Discussion

EMH is usually asymptomatic and discovered incidentally. Symptomatic cases occurs due to mass effect with compression to adjacent organ. The surgical indication for excision of the adrenal incidentalomas is the tumor size. Adrenal tumor larger than 6 cm in diameter must be excised. In these cases, the risk of adrenal cancer is 35%–98%.<sup>1,2</sup> In our case the size of the tumor was 9 cm in diameter.

\* Corresponding author. UMHA "Kanev" Ruse, 2 "Nevazisimost" str, 7000, Bulgaria.

E-mail addresses: [kolevmnd@yahoo.com](mailto:kolevmnd@yahoo.com) (N.H. Kolev), [genov\\_p@abv.bg](mailto:genov_p@abv.bg) (P.P. Genov), [v\\_dunev@abv.bg](mailto:v_dunev@abv.bg) (V.R. Dunev), [stanaovmd@yahoo.com](mailto:stanaovmd@yahoo.com) (B.A. Stoykov).

<sup>1</sup> Present/permanent address. 97 "Aleksandrovka" str. Ruse, Bulgaria, 7000.

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14. Boyan Stoykov, Nikolay Kolev, Vladislav Dunev, Pencho Genov. Low-intensity extracorporeal shockwave therapy in the treatment of erectile dysfunction after penile trauma. *Urology Case Reports*. 2020, 101133, ISSN 2214-4420. (SJR= 0.199)



## Low-intensity extracorporeal shockwave therapy in the treatment of erectile dysfunction after penile trauma

Boyan Stoykov<sup>a,\*</sup>, Nikolay Kolev<sup>a</sup>, Vladislav Dunev<sup>a</sup>, Pencho Genov<sup>b</sup>

<sup>a</sup> Department of Urology, Medical University Plevan, Bulgaria

<sup>b</sup> Department of Urology, UMHAAT, Ruse, Bulgaria

### ARTICLE INFO

#### Keywords:

Low-intensity extracorporeal shockwave therapy  
Penile trauma

### ABSTRACT

In urology low-intensity extracorporeal shockwave therapy (LI-ESWT) finds major application in the treatment of erectile dysfunction (ED) after nerve-sparing radical retropubic prostatectomy and Peyronie's disease. We presented a rare case of application of LI-ESWT in a 39-years old man with erectile dysfunction after penile trauma obtained during sexual intercourse.

### Introduction

The incidence of sexual penile traumas is under-reported because often patients do not want medical attention due to psychological and ethical reasons. According to the American Association for the Surgery of Trauma the penile injuries are 5 types: cutaneous contusion, Buck's fascia laceration without tissue loss as in our case, cutaneous laceration through glans/meatus/cavernosal or urethral defect <2 cm, cavernosal or urethral defect >2 cm/partial penectomy and total penectomy. The European Association of Urology in Guideline 2019 provides us with an algorithm for the treatment of ED in such cases. First we have to start with phosphodiesterase-5 inhibitors, topical/intraurethral alprostadil, vacuum device or LI-ESWT. LI-ESWT induces mechanical stress and microtrauma (shear stress). This leads, on the one hand, to the production of non-enzymatic nitric oxide from endothelial cells and, on the other, to the release of angiogenic factors leading to neovascularization and cell proliferation. If we do not have an adequate treatment outcome we have to continue to intracavernosal injections and finally to penile prostheses.

### Case report

We present a case of a 39-years old man who during stormy sexual intercourse gets a sudden acute pain in the penis. Due to the inconvenience, the patient visits a urologist after two days. The physical examination revealed the presence of a hematoma located on the dorsal surface of the penis Fig. 1. The ultrasound examination revealed no rupture of the cavernosal tunica albuginea Fig. 2. Non-steroidal

analgetics and ice-packs were administered to the patient. The patient was called for a follow-up examination after one month. The physical examination revealed that the penis had no visual and palpable changes, but the patient reported an ED. Complete blood count, blood glucose, cholesterol, triglycerides and testosterone were undertaken. All results were within the reference range. Urine test showed no bacteria. International Index of Erectile Function (IIEF-5) was calculated. The result showed 16 points, which corresponds to a mild to moderate ED. We prescribed phosphodiesterase-5 inhibitor - tadalafil 5 mg once daily for a period of 3 months. At the follow-up examination after three months, the patient reported a slight improvement in erection but noticed a deviation of the penis to the right during the erection. Measurements revealed a mild deviation of the penis on the right – 20°, and IIEF-5 score was 19 points, which corresponds to a mild degree of ED. Based on these results, after talking with the patient, a decision was made to stop taking tadalafil and initiate LI-ESWT. The prescribed therapy was for a period of 8 weeks, in 5 positions of the penis: in the proximal, middle and distal part of the dorsal surface of the body of the penis (Fig. 3), as well as in the left and right legs of the cavernous body. At each point 600 strokes were exposed, a total of 3000 strokes per procedure. At the follow-up examination after 2 months the patient reported improvement in erection and deviation. The measurements showed IIEF-5 - 22 points, which corresponds to normal erectile function and a residual deviation of 10°, which does not disturb the patient.

### Discussion

At present, phosphodiesterase-5 inhibitors are the most widely used

\* Corresponding author. Department of Urology, "Saint Marina" Hospital, Medical University Plevan, Balgarska aviaztia Street, Plevan, 5800, Bulgaria.  
E-mail address: atanasovmd@yahoo.com (B. Stoykov).

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15. Stoykov B, Kolev N, Dunev V, Genov P, Atanasov J, Mateva S. A rare case of huge villous adenoma of the renal pelvis deforming the abdominal wall. *Urology Case Reports*, 2020, 101183, ISSN 2214-4420. (SJR= 0.199)



Inflammation and infection

## A rare case of huge villous adenoma of the renal pelvis deforming the abdominal wall

Boyan Stoykov<sup>a,\*</sup>, Nikolay Kolev<sup>a</sup>, Vladislav Dunev<sup>a</sup>, Pencho Genov<sup>b</sup>, Jitian Atanasov<sup>a</sup>, Svetlana Mateva<sup>c</sup>

<sup>a</sup> Department of Urology, Medical University Pleven, Bulgaria

<sup>b</sup> Department of Urology, UMHAT - Ruse, Bulgaria

<sup>c</sup> Department of Pathoanatomy, Medical University Pleven, Bulgaria

### ARTICLE INFO

#### Keywords:

Villous adenoma  
Muconephrosis  
Genitourinary tract

### ABSTRACT

The villous adenoma is a benign epithelial tumor affecting most often the gastrointestinal tract, especially the colon and rectum. The incidence of this disease in the genitourinary tract is less than 1% as the most commonly affected organs are bladder, urethra, prostate, vulva and vagina. Only several cases of villous adenoma in the renal pelvis have been reported in the scientific literature. The disease is more common in men between the ages of 40 and 70. We presented a rare case of huge villous adenoma of the renal pelvis in 61 years old man.

### Introduction

The villous adenoma is a uncommon tumor that rarely affects the urinary tract. Only a few cases of this condition involving the upper urinary tract have been described in the world literature. The cause of this disease is intestinal metaplasia of the urothelium due to chronic inflammation caused by a stone in the renal pelvis or other reasons. Characteristic of the disease is the appearance of mucus in the kidney (muconephrosis), which is produced by goblet-type mucin-producing cells. Careful monitoring of this rare condition is mandatory, because it may be accompanied by kidney cancer.

### Case report

We presented a rare case of huge villous adenoma of the renal pelvis in 61 years old man. The patient reported the presence of staghorn stone in the right kidney, dating from 2013. For several months, the patient has been complaining of pain and discomfort in the right lumbar region. In recent weeks, he has noticed the appearance of intermittent mucosuria. During physical examination, a large tumor mass deforming the abdominal wall was identified. The right kidney, with huge size (300/200 mm) with complete loss of parenchyma, the presence of severe hydronephrosis and large staghorn stone, are visualized from the contrast-enhanced CT (Fig. 1). No significant pathological changes in the lung area were observed except for a small pleural effusion on the

right and aortic sclerosis. The results of laboratory tests of blood and urine showed no deviation from the norm. The patient was offered a robot-assisted nephrectomy of the affected kidney, which was performed by the robotic system - Da Vinci Xi. The surgical specimen (Fig. 2) weighed 956 g and measured 30.5 × 15.0 × 12.0 cm. It was composed of numerous mucus-filled caverns and large staghorn stone. The postoperative period was without complications. The patient was discharged on the fourth post-operative day. The histological result was: "Renal parenchyma with chronic pyelonephritis. In pyelone, presence of villous adenoma with mild dysplasia developed on the basis of intestinal metaplasia" (Fig. 3).

### Discussion

As a localization, the villous adenoma is most commonly localized in the gastrointestinal tract (mostly the colon and rectum). It is much rarer in the hepatobiliary and genitourinary systems. Assor reported the first urothelial villous adenoma in the genitourinary tract in 1978.<sup>1</sup> He described the presence of a mucous-producing lesion in the bladder. In 2002 Park reported the first villous adenoma of the renal pelvis and introduced the term "muconephrosis".<sup>2</sup> According to Bath the major risk factors for villous adenoma are chronic irritation and inflammation due to urinary tract calculus and infection.<sup>3</sup> It is very difficult to diagnose villous adenoma on imaging or clinically because of the lack of specific features. Usually the patients are middle aged or elderly males. The main

\* Corresponding author. Department of Urology, "Saint Marina" Hospital, Medical University Pleven, Balgarska aviatzia Street, Plevna, 5800, Bulgaria.  
E-mail address: atanasovmd@yahoo.com (B. Stoykov).

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16. Stoykov B, Kolev N, Dunev V, Genov P, Gincheva D, Georgiev M. Successful in vitro fertilization in a 30 years old man with bilateral abdominal cryptorchidism. *Urology Case Reports* (2020), 101173, ISSN 2214-4420. (SJR= 0.199)

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Andrology and fertility

**Successful in vitro fertilization in a 30 years old man with bilateral abdominal cryptorchidism**

Boyan Stoykov<sup>a,\*</sup>, Nikolay Kolev<sup>a</sup>, Vladislav Dunev<sup>a</sup>, Pencho Genov<sup>b</sup>, Dobrinka Gincheva<sup>c</sup>, Marin Georgiev<sup>d</sup>

<sup>a</sup> Department of Urology, Medical University Pleven, Bulgaria  
<sup>b</sup> Department of Urology, UMDIAT, Ruse, Bulgaria  
<sup>c</sup> MC CIRM "St. Elisaveta", Pleven, Bulgaria  
<sup>d</sup> Department of Urology, Medical University Sofia, Bulgaria

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**ARTICLE INFO**

**Keywords:**  
Fowler-stephens procedure  
TESE  
ICSI

**ABSTRACT**

Retention of the testis is one of the most common congenital malformation in male infants. The incidence of this disease is 1-2% at 1 year of age. As nonpalpable are reported around 20% of cases and in up to 30% of neonates may affect both sides. For optimal results, orchidopexy should be performed between the ages of six and eighteen months. We presented a rare case of successful in vitro fertilization after laparoscopic Fowler-Stephens orchidopexy in 30 years old man with bilateral abdominal cryptorchidism.

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**Introduction**

Bilateral abdominal cryptorchidism in the described case was diagnosed at urological examination for primary infertility. It is known that untreated bilateral undescended testes are 100% oligospermic and 75% azoospermic. It should be noted that in cases with bilateral undescended testes after successful treatment, 75% are still oligospermic and 42% are azoospermic.<sup>1</sup> When the disease is diagnosed in the elderly, as it is in our case, the length of testicular vessels embarrass the movement of the testis to the scrotum. Fowler and Stephens find a solution to this problem in 1959.<sup>2</sup> They suggested a division of testicular vessels high from the testis to preserve collateral blood supply. The original technique was an one-stage procedure. In 1984 Ransley et al.<sup>3</sup> proposed the two-stage surgery, expecting the collateral blood supply development after cutting the testicular vessels. A recent meta-analysis evaluating high success rates of 80% for one-stage and up to 85% for two-stage procedures.<sup>4</sup> After the orchidopexy, the only way to create your own generation is TESE (testicular sperm extraction) followed by in vitro fertilization.

**Case report**

We present a case of a 30-years old man who seeks medical attention in connection with primary infertility. Initially, the patient was assigned two consecutive enlarged spermograms showing complete absence of

sperm. The following studies were assigned: measurement of serum testosterone and follicle stimulating hormone (FSH) levels, genetic testing, ultrasound examination of the reproductive organs. Testosterone and follicle stimulating hormone levels were within the reference range. Chromosomal analysis excluded the genetic etiology of the condition, and an ultrasound examination revealed a lack of testes in the scrotum and inguinal canals bilaterally. In addition, tumor markers for testicular cancer and MRI were assigned. Tumor markers were normal and MRI showed bilateral intra-abdominal cryptorchidism (Fig. 1). In view of the patient's age, it was decided to perform a two-stage laparoscopic Fowler-Stephens orchidopexy preserving gubernaculum. In the first stage of the operation, the testicular blood supply to the testes was interrupted bilaterally laparoscopically (Fig. 2). Two months later, the second stage of the operation was completed. The peritoneum was cut laterally to the vessels of testis. The incision was extended first upwards, including the border of the inner ring and the surrounding testis and epididymis; then medially along the vas deferens extending near the bladder, with a 1 cm border of the peritoneum on both sides. This peritoneal triangle provides collateral blood supply to the testes after cutting the testicular vessels. The testis and gubernaculum were taken down through the inner ring. For this purpose a groin incision was made and the external oblique aponeurosis was cut. After three months, we repeated the study of testosterone, the follicle-stimulating hormone and ultrasound examination of the reproductive organs. All

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\* Corresponding author. Department of Urology, "Saint Marina" Hospital, Medical University Pleven, Balgarska aviatzia Street, Pleven, 5800, Bulgaria.  
E-mail address: [stoykovmd@yahoo.com](mailto:stoykovmd@yahoo.com) (B. Stoykov).


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17. Dunev Vladislav, Genov Pencho, Stoykov Boyan, Kolev Nikolay. Unmeshed split-thickness SKIN grafts for penile plastic in patients with paraffinoma. *Urology Case Reports*, 32, 2020, 101249, ISSN 2214-4420, <https://doi.org/10.1016/j.eucr.2020.101249>. (SJR= 0.199)

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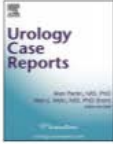


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Inflammation and infection



## Unmeshed split-thickness SKIN grafts for penile plastic in patients with paraffinoma

Dunev Vladislav<sup>a,\*</sup>, Genov Pencho<sup>b</sup>, Stoykov Boyan<sup>c</sup>, Kolev Nikolay<sup>a</sup>

<sup>a</sup> Medical University Pleven, "Georgi Kochev" 8A str, 5800, Bulgaria  
<sup>b</sup> UMHA "Kanev" Ruse, "Nesavisimost" 2 str, 7000, Bulgaria  
<sup>c</sup> Medical University Pleven, "Bulgarian Aviation" str, 5800, Bulgaria

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**ARTICLE INFO**

**Keywords:**  
Paraffinoma penis  
Split-thickness skin grafts

**ABSTRACT**

Paraffinoma of male genitalia (PMG) is a chronic granulomatous reaction to a "foreign body" developed after injection of exogenous substances (ES).  
There are many plastic surgical techniques for aesthetic and functional recovery of affected tissues. We report here use of unmeshed split-thickness skin grafts (unmSTSG) in patients with genital paraffinoma.

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### Introduction

Injection of ES in order to enlarge the penis is still common practice in Bulgaria. We use for skin recovery: Meshed split-thickness skin grafts (mSTSG), Modified Cecil's, Bilateral scrotal flaps and Simple excision. We also use since 2017-year unmSTSG.

### Case presentation

A 28-year-old man was admitted to the Clinic of Urology at Medical University Pleven in 2017. Five year ago, he was injected 40 ml. liquid paraffin in his penis. The symptoms were pain and swelling. One year later, periodic inflammation began with redness and swelling of the genital area. These complications have been treated with antibiotics and anti-inflammatory drugs. Detailed physical examination showed tender, irregular, granulomatous formations engaging whole genital and pubic area. The penile skin was with discoloration and necrotic area [Fig. 1]. The patient had not sexual intercourse for over of year, because of penis deformity and pain. There was one palpable right inguinal lymph node about 2 cm.

We removed completely the skin and subcutaneous tissue infiltrated by the foreign material until Buck's fascia. An 0.015 inches unmSTSG graft was used taken from the right thigh anterior surface with length – penile circumference and width – 10 cm. [Fig. 2]. The penis was immobilized with 100 ml split syringe on anti-septic, paraffin impregnated, chlorhexidine acetate gauze dressing. A urethral catheter was inserted for five days [Fig. 3]. Scrotal and pubic granulomatous tissue are also removed with excision and primary closure. The patients were followed-up for three months for post-operative complications and assessment of the cosmetic and functional outcome.

### Results

The cosmetic outcome was good as judged by the patient and the surgeon. The patients had normal spontaneous erections and normal voiding. The IIEF-5: was 23. There was no contraction of the flap and deformation of the penis. There was some shrinkage (plication) of the new skin on the midline of the dorsal penis about 1 cm. The patient developed in the distal, ventral part of the penis necrosis about 0.4 cm., probably due to the incomplete removal of the granulomatous tissue or/and incomplete autograft adhesion in this area.

### Discussion

It is difficult to understand the reasons that compel normal anatomically and functionally men to use exogenous substances to change their appearance.

Since ancient times, the size of the penis has been important for men. To impress their partners and increase their self-esteem, some of them are looking for a way to enlarge their genitals. The Sadhus holy men of

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\* Corresponding author. Medical University Pleven, "Georgi Kochev" 8A str. 5800, Bulgaria.  
E-mail addresses: [v.dunev@abv.bg](mailto:v.dunev@abv.bg) (D. Vladislav), [genov\\_p@abv.bg](mailto:genov_p@abv.bg) (G. Pencho), [atanasovmd@yahoo.com](mailto:atanasovmd@yahoo.com) (Stoykov Boyan), [kolevmd@yahoo.com](mailto:kolevmd@yahoo.com) (Kolev Nikolay).  
<sup>1</sup> Present/permanent address. "Hristo Botev" 59 str. Plevan Bulgaria 5800.

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Mini Review

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## Application of Erection Hardness Score as a Diagnostic Tool to Assess Erectile Function Recovery after Robot-Assisted Radical Prostatectomy



**Boyan A Stoykov<sup>\*1</sup>, Nikolay H Kolev<sup>1</sup>, Vladislav R Dunev<sup>1</sup>, Pencho P Genov<sup>2</sup> and Manish Sachdeva<sup>1</sup>**

<sup>1</sup>Department of Urology, Medical University, Bulgaria

<sup>2</sup>Department of Urology, UMHAT Ruse, Bulgaria

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\*Corresponding author: Boyan Stoykov; Clinic of Urology, Medical University Plevan, Bulgaria, Tel: 359888267368; Email: atanasovm@gmail.com

### Abstract

The objective of this study was to characterize time-dependent recovery of erectile function following robot-assisted radical prostatectomy (RARP) using the erection hardness score (EHS). This study included 42 patients with localized prostate cancer (PC) undergoing RARP without neoadjuvant hormonal therapy. The erectile function of each patient was assessed based on the international index of erectile function-5 (IIEF-5) and EHS at the baseline and on every visit after RARP. In this series, potency was defined as the ability to have an erection sufficient for intercourse, corresponding to EHS  $\geq 3$ , while patients with EHS  $\leq 2$  were regarded as those with erectile function. Of these 42 patients, 15 and 27 underwent bilateral and unilateral nerve-sparing procedures, respectively. A proportional increase in the IIEF-5 score according to EHS was noted at 12 months after RARP. At 3, 6 and 12 months after RARP, the recovery rates of erectile function were 22.6, 55.3 and 74.8 %, respectively, while those of potency were 11.7, 23.5 and 32.3 %, respectively. The results we obtained show that the EHS could be successfully used instead of IIEF-5 to assess post-operative EF recovery. Of the several factors examined, the age, preoperative outcome of IIEF-5 and the nerve-sparing procedure were identified as major independent predictors of EF recovery.

**Keywords:** Prostate cancer; Robot-assisted radical prostatectomy; Erectile function; Erection hardness score

**Abbreviations:** RARP: Robot-Assisted Radical Prostatectomy; EHS: Erection Hardness Score; PC: Prostate Cancer

### Introduction

In recent years, the proportion of patients treated with RARP as an initial therapy in prostate cancer has increased, as the number of patients diagnosed with prostate cancer at an early stage has increased significantly [1]. It is known that RARP can achieve excellent cancer control, with 10-year survival of > 90% [2]. Although significant advances have been made in recent years in exploring pelvic anatomy and the advancement of surgical techniques [3], RARP is still often accompanied by several types of postoperative adverse events such as incontinence and erectile dysfunction [3,4]. This has a negative impact on the postoperative quality of life of patients undergoing RARP [5].

Over the last decade, the introduction of RARP has led to a change in the paradigm in the field of surgical treatment of patients with localized prostate cancer. Robot-assisted radical prostatectomy has become the dominant procedure compared

with other surgical approaches because robotic technology allows surgeons to perform more precise and accurate movements that help preserve the basic anatomical structures associated with achieving favorable functional outcomes [6]. Existing literature data also show relatively better functional outcomes after RARP than those following other approaches. In this study, we enrolled a total of 42 patients with localized prostate cancer who underwent RARP without neoadjuvant hormonal therapy. They were investigated for time-dependent changes in EF recovery following RARP based on the EHS.

### Materials and Methods

This study includes a total of 42 patients with clinically localized prostate cancer who underwent RARP without neoadjuvant hormone therapy between May 2014 and December 2016 at the University Hospital "Dr. Georgi Stranski" Plevan. In

# МЕДИКАМЕНТОЗНО ЛЕЧЕНИЕ НА СИМПТОМИТЕ НА ДОЛНИТЕ ПИКОЧНИ ПЪТИЩА ПРИ МЪЖА



доц. д-р  
Никола Колев, гм

Медицински директор на Клиника  
по урология, ИУБА  
д-р Георги Спирин  
д-р Павлин

Доброкачествената простатна хиперплазия (ДПХ) засяга около 40% от мъжете на възраст между 50 и 60 год. С нарастването на възрастта процентът се покачва, като стига до 80-90% при мъже над 80 години. Поради тази причина възраст над 50 години се приема за рисков фактор за развитието на ДПХ. През последните години се въвежда събирателното понятие Симптоми на долните пикочни пътища (СДПП) при мъжете, които обобщават както симптомите от увеличената простата, така и симптомите, свързани с пикочния мехур<sup>1</sup>. Увеличената простатна жлеза може да участва в появата на СДПП чрез два компонента:

1. Директна обструкция на уринния поток на изхода на пикочния мехур (статична компонента).

2. Повишен тонус на гладката мускулатура в шийката на мехура, уретрата и простатата, дължащо се на стимулиране на алфа-1 адренорецепторите чрез симпатиковата нервна система (динамична компонента).

СДПП е термин, включващ всички уринарни симптоми, засягащи както мъжете, така и жените и се разделят на три основни групи (Табл. 1).

При около 2/3 от пациентите се срещат симптоми от повече от една симптоматична група. При проведено международно проучване EpiLUTS, обхващащо повече от 14 000 мъже над 40-годишна възраст, е установено, че 71% от участниците със СДПП имат комбинация от симптоми от различни групи (Фиг. 1)<sup>2</sup>. Поради тази причина Европейската асоциация по урология (EAU) в наръчника си за поведение от 2015 г. препоръчва при пациентите с оплаквания от различни групи лечение с комбинация от различни медикаменти.

Редия проучвания показват, че ДПХ е прогресиращо заболяване, което налага продължително лечение при извадена симптоматика<sup>3,4</sup>.

Медикаментозната терапия може да осигури на пациентите както подобряване на оплакванията с повишаване на качеството на живот, така и намаляване на риска от прогресия на заболяването.

Общоприет начин за оценяване на симптомите на пациенти с ДПХ е Международният простатен симптоматичен индекс (International Prostate Symptom Score - IPSS), базиращ се на отговорите на 7 въпроса, засягащи уринирането и качеството на живот. Въпросникът дава ясна и обективна представа кои симптоми преобладават при конкретния пациент, каква е тежестта им и така прецизира обективната оценка на лечението.

При пациенти с лекоизразени или слабо изразени оплаквания (IPSS<7) може да се приложи методът на изследвателно наблюдение. Пациентите със средно и тежко изразени симптоми (IPSS>7) са по-заплашени от прогресия на заболяването в дългосрочен план и по тази причина при тях се препоръчва дългосрочно медикаментозно или хирургично лечение след неуспех на консервативното лечение. Хирургичното лечение се препоръчва при пациенти с тежко изразени СДПП, при болни с усложнения на заболяването или остра задръжка на урината.

Преди започване на лечение на паци

Доброкачествената простатна хиперплазия е често срещано състояние, засягащо мъжете след 45-50-годишна възраст. ДПХ е хистологична диагноза, която представлява разрастване на гладкомускулни и епителни клетки от средната (транзиторна) част на простатната жлеза. При липса на оплаквания ДПХ се определя като състояние, което преминава в заболяване при поява на симптоми, свързани с уголемяването. Точната етиология е неизвестна, но определено значение имат възрастта и мъжките полови хормони.



20. П. Генов, Н. Колев, Вл. Дунев. Оперативно срещу консервативно лечение при първична преждевременна еякулация. Урология и ендouroлогия 2016. Том 22, бр. 3: 51-54, ISSN: 1310-6058

ОРИГИНАЛНИ СТАТИИ

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## ОПЕРАТИВНО СРЕЩУ КОНСЕРВАТИВНО ЛЕЧЕНИЕ ПРИ ПЪРВИЧНА ПРЕЖДЕВРЕМЕННА ЕЯКУЛАЦИЯ

П. Генов\*, Н. Колев, Вл. Дунев

Клиника по урология

УМБАЛ "Г. Странски", Плевен

Отделение по урология\*

МБАЛ "Русе" АД, Русе

## SURGICAL VERSUS CONSERVATIVE TREATMENT IN MEN WITH LIFELONG PREMATURE EJACULATION

P. Genov\*, N. Kolev, Vl. Dunev

Clinic of Urology

UMBAL "G. Stranski", Pleven

Department of Urology\*

MBAL "Ruse" Ltd, Ruse

### РЕЗЮМЕ

Преждевременната еякулация е най - често срещаната сексуална дисфункция при мъжете, но въпреки това тя не е добре проучена. Нейната честота достига до 30% при мъжете от 18 до 59 години в различните държави.

Етиологията на преждевременната еякулация е неясна. Като причини за възникването ѝ се посочват - тревога (безпокойство), свръхчувствителност на пениса и дисфункция на 5 - HT рецепторите.

Преждевременната еякулация най - общо се дели на първична (появяваща се от началото и почти при всички полови контакти) и вторична (ситуационна - появяваща се рядко при определени провокиращи фактори).

Нейното лечение е консервативно, но нито един от утвърдените методи не дава добри и трайни резултати и процентът на отказ от лечение на пациентите е много висок.

### Цел

Нашата цел беше да изследваме и сравним ефективността на оперативното лечение (микрохирургичната денервация на пениса) спрямо стандартното консервативно лечение.

### Материал и методи

Микрохирургична денервация на пениса (МДНП) беше извършена при 22 - ма пациенти с първична преждевременна еякулация в периода септември 2011 - март 2014. Ефективността на операцията беше сравнена с група от 26 - паци-

### ABSTRACT

Premature ejaculation is the most common sexual dysfunction in men. Despite that it is not very well investigated. In different countries among the men between 18 and 59 years old it's frequency is up to 30%. The ethiology of premature ejaculation is not well known. As ethiological reasons are designate - anxiety (inconvenience), penile hypersensitivity and dysfunction of 5-HT receptors. Premature ejaculation is classified as lifelong (occurring from the beginning and shown in almost sexual intercourses) and acquired (situational-occurring in special conditions). The treatment of premature ejaculation is conservative, but none of the used methods don't give good and lasting results. The percentage of patients who refused to continue treatment is very high.

**Our aim** is to investigate and to compare the effectiveness of operative treatment (micro-surgical denervation of penis) and the standard conservative treatment.

### Material and methods

Micro-surgical denervation of penis (MDOP) was done on 22 patients with lifelong premature ejaculation between September 2011 - March 2014. The effectiveness of treatment was compare to group of 26 patients treated on demand with 60 mg Dapoxetine. The two groups of patients were followed for 1 year, so we can object the lasting and permanent results from the two treatment methods. The criteria of effectiveness were investigation of

енти, приемащи при нужда 60 мг Дапоксетин.

Двете групи пациенти бяха проследени за период от 1 година, за да се обективизират трайните и дългосрочни резултати от двата вида лечение. Критериите за оценка на ефективността бяха изследвани на IELT (интравагиналното еякулаторно латентно време), PEDT, PEP и IIEF - 5.

#### Резултати

Сигнификатно увеличение на IELT се наблюдаваше и в двете групи пациенти при изходни нива средно от 50 сек. за двете групи преди лечението. В края на първата година IELT за групата с МДНП беше 380 сек, а IELT за групата с Дапоксетин беше средно 220 сек.

Средният PEDT score преди лечението беше 17 и за двете групи. Той показва значително понижение на първата година съответно при групата МДНП до 7, а за групата премаща Дапоксетин - 11.

Не отчетохме разлики в резултатите, получени от въпросника за оценка на еректилната функция IIEF-5. Данните бяха средно 23 точки преди лечението за двете групи и 22 точки в края на първата година.

Значително подобрение отчетохме и за двете групи от Въпросника за профил на ПЕ-РЕР.

#### Изводи

МДНП показва значително предимство пред стандартното лечение с Дапоксетин. Тя може да бъде използвана като алтернативен метод за лечение при пациенти с първична преждевременна еякулация, особено при такива с лош комплайнс и отказ от консервативно лечение.

**Ключови думи:** преждевременна еякулация, микрохирургична денервация на пениса, дапоксетин

IELT (intra-vaginal ejaculatory latency time), PEDT, PEP and IIEF-5.

#### Results

Significant increasing of IELT was shown in both groups of patients. The baseline IELT for both groups was 50 sec. and at the end of the first year of treatment IELT in the MDOP was increase to 380 sec and IELT for the group treated with Dapoxetine was 220 sec.

The median PEDT score before treatment was 17 for both groups. And shown significant decreasing after 1 year of treatment, respectively the MDOP group - 7 and Dapoxetine group 11.

No significant differences was noted from the IIEF 5 questionnaire. The median result before treatment was 23 for the both treatment groups and at the end of 1 year remains stable with 22 for the both groups. Significant improving was detected for both treatment groups from PEP questionnaire.

#### Conclusions

MDOP shows significant superiority than the standart conservative treatment with Dapoxetine. It can be used as an alternative method of treatment in patients with lifelong premature ejaculation, especially in those who had bad compliance and refuse to take conservative treatment.

**Key words:** premature ejaculation, micro-surgical denervation of penis, dapoxetine

Преждевременната еякулация е най - често срещаната сексуална дисфункция при мъжете, но въпреки това тя не е добре проучена.

Нейната честота достига до 30% при мъжете от 18 до 59 години в различните държави.

Етиологията на преждевременната еякулация е неясна. Като причини за възникването ѝ се посочват - тревога (безпокойство), свръхчувствителност на пениса и дисфункция на 5 - ХТ рецепторите.(1)

Преждевременната еякулация най - общо се дели на първична (появяваща се от началото и почти при всички полови контакти) и вторична (ситуационна - появяваща се рядко при определени провокиращи фактори).

Лечението на преждевременната еякулация е консервативно, но нито един от утвърдените методи не дава добри и трайни резултати. Прочастът на отказ от лечение при пациентите е максимален. На втората година след началото на приемане на Дапоксетин по различни причини (2).

#### ЦЕЛ

Нашата цел беше да изследваме и сравним ефективността на оперативното лечение (микрохирургичната денервация на пениса) спрямо стандартното консервативно лечение с Дапоксетин.

21. П. Генов, Н. Колев, Вл. Дунев. Връзка между чувствителност на пениса и първична преждевременна еякулация; Урология и ендouroлогия 2016; том.22, бр. 4: 96-98.  
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ОРИГИНАЛНИ СТАТИИ

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## ВРЪЗКА МЕЖДУ ЧУВСТВИТЕЛНОСТ НА ПЕНИСА И ПЪРВИЧНА ПРЕЖДЕВРЕМЕННА ЕЯКУЛАЦИЯ

П. Генов\*, Н. Колев, Вл. Дунев

Клиника по урология

УМБАЛ "Г. Странски", Плевен

Отделение по урология\*

МБАЛ РУСЕ АД Русе

## CORRELATION BETWEEN PENILE SENSITIVITY AND LIFELONG PREMATURE EJACULATION

P. Genov\*, N. Kolev, V. Dunev

Clinic of Urology

UMHAT "G. Stranski", Pleven

Department of Urology\*

MHAT "Ruse" AD Ruse

### РЕЗЮМЕ

Преждевременната еякулация е често срещана дисфункция при мъжете и тя не е добре проучена. Нейната честота достига до 30% при мъжете от 18 до 59 години в различните държави.

Етиологията на преждевременната еякулация е неясна. Като причини за възникването ѝ се посочват - тревога (безпокойство), свръхчувствителност на пениса и дисфункция на 5-HT рецепторите.

Преждевременната еякулация най-общо се дели на първична (появяваща се от началото и почти при всички полови контакти) и вторична (ситуационна - появяваща се рядко при определени провокиращи фактори).

### Цел

Нашата цел беше да изследваме и проучим чувствителността на пениса при мъже с първична преждевременна еякулация и дали може да служи като причина и етиологична база за възникването на тази дисфункция.

### Материал и методи

Изследване на чувствителността на пениса посредством биоденситометрия беше направена при 22-ма пациенти с първична преждевременна еякулация, без еректилна дисфункция и неврологични отклонения и 28 здрави мъже доброволци без отклонения в сексуалния живот. беше изследвана чувствителност за допир, вибрационни и температурни стимули. Чувствителност

### ABSTRACT

Premature ejaculation is the most common sexual dysfunction in men. Despite that it is not very well investigated. In different countries among the men between 18 and 59 years old it's frequency is up to 30%. The etiology of premature ejaculation is not well known. As etiological reasons are designate-anxiety (inconvenience), penile hypersensitivity and dysfunction of 5-HT receptors. Premature ejaculation is classified as lifelong (occurring from the beginning and shown in almost sexual intercourse) and acquired (situational - occurring in special conditions).

**Our aim** was to investigate penile sensitivity in men with lifelong premature ejaculation and could that be etiological basis for occurring of that sexual dysfunction.

### Material and methods

Biotensiometry measurements of penile sensitivity was done to 22 men with lifelong premature ejaculation, without erectile dysfunction and neurological diseases and also the same measurement was done to 28 healthy volunteers without sexual problems. We investigate touch, vibration and temperature stimuli. The measurements was done on glans penis, on basis penis and on the right index finger. The median age of the two groups of patients was 28 years (from 18 to 39).

### Results

The measurements on glans and basis of penis



та беше изследвана на гланс пенис, в основата на пениса и на показалеца на дясната ръка.

Средната възраст на изследваните мъже при двете популации беше 28 години (от 18 до 39 години).

### Резултати

Измерванията на гланс пенис и в основата на пениса показаха сигнификатно по-нисък праг и по-висока чувствителност при групата мъже с първична преждевременна еякулация ( $p < 0.001$ ). Двете групи показват сходна чувствителност на показалеца и не се откриха значими разлики. Намаляване на чувствителността на пениса с напредването на възрастта беше открита и в двете групи, като мъжете с първична преждевременна еякулация показаха по-висока чувствителност във всички възрастови групи.

### Изводи

При пациентите с първична преждевременна еякулация е измерена повишена чувствителност на пениса, което може да послужи като органичен субстрат за нейното повлияване и лечение. Понижаването на чувствителността на пениса може да доведе до значително повлияване на симптомите на първична преждевременна еякулация.

**Ключови думи:** преждевременна еякулация, чувствителност на пениса, биоденситометрия

Преждевременната еякулация е често срещана дисфункция при мъжете и тя не е добре проучена. Нейната честота достига до 30% при мъжете от 18 до 59 години в различните държави.

Етиологията на преждевременната еякулация е неясна. Като причини за възникването ѝ се посочват тревога (безпокойство), свръхчувствителност на пениса и дисфункция на 5-HT рецепторите.

Преждевременната еякулация най-общо се дели на първична (появяваща се от началото и почти при всички полови контакти) и вторична (ситуационна - появяваща се рядко при определени провокиращи фактори). (1,2,3)

### ЦЕЛ

Нашата цел беше да изследваме и проучим чувствителността на пениса при мъже с първична преждевременна еякулация и дали може да служи като причина и етиологична база за възникването на тази дисфункция.

shows significant lower border and higher sensitivity in the group of men with lifelong premature ejaculation ( $p < 0.001$ ). The both groups shows similar sensitivity on the right index finger and no significant differences were found. Decreasing of penile sensitivity was detected in older patients for both groups, but the men with lifelong premature ejaculation shows higher penile sensitivity in all ages.

### Conclusions

In patients with lifelong premature ejaculation we measured higher penile sensitivity, which can be used as substrate for its curing and treatment. Decreasing penile sensitivity can be very useful to cure the symptoms of lifelong premature ejaculation.

**Key words:** premature ejaculation, penile sensitivity, biotensiometry

### МАТЕРИАЛ И МЕТОДИ

Изследване на чувствителността на пениса посредством биоденситометрия беше направена при 22-ма пациенти с първична преждевременна еякулация, без еректилна дисфункция и неврологични отклонения и 28 здрави мъже доброволци без отклонения в сексуалния живот. Беше изследвана чувствителност за допир, вибрационни и температурни стимули. Чувствителността беше изследвана на гланс пенис, в основата на пениса и на показалеца на дясната ръка. Изследванията за чувствителност на пениса се извършваха при стайна температура 22 - 23° C след аклиматизация от 30 минути. Участниците бяха разположени в легнало положение по гръб. Проучване на усет за допир се извърши с монофилamentен тест Semmes-Weinstein, приложени във възходящ ред перпендикулярно на повърхността за две секунди. Чувството за допир изследвахме на долната повърхност на дисталната фаланга на показалеца, по средата на дорзалната повърхност на корпуса на пениса и по средата на дорзалната повърхност на гланса на пениса. Тестът приложихме трикратно на всяко място.

22. П. Панчев, П. Симеонов, Д. Младенов, М. Георгиев, К. Янев, В. Василев, П. Димитров, В. Младенов, Г. Деримачковски, И. Салтиров, С. Николов, В. Марияновски, И. Дечев, Н. Колев, Л. Петкова, К. Давидов, В. Хаджиев. Neorenal Forte за медикаментозна експулсивна терапия след SWL при пациенти с уролитиаза: мултицентрово съпоставително наблюдение на Неоренал Форте спрямо Роватинекс, Уронат и Цистон. Уронет, 2016, бр. 2, 3-9 стр. ISSN 1312-1960

## НЕОRENAL FORTE ЗА МЕДИКАМЕНТОЗНА ЕКСПУЛСИВНА ТЕРАПИЯ СЛЕД SWL ПРИ ПАЦИЕНТИ С УРОЛИТИАЗА: МУЛТИЦЕНТРОВО СЪПОСТАВИТЕЛНО НАБЛЮДЕНИЕ НА НЕОRENAL FORTE СПРЯМО РОВАТИНЕКС, УРОНАТ И ЦИСТОН

П. Панчев<sup>1</sup>, П. Симеонов<sup>1</sup>, Д. Младенов<sup>1</sup>, М. Георгиев<sup>1</sup>, К. Янев<sup>1</sup>, В. Василев<sup>1</sup>,  
Пл. Димитров<sup>1</sup>, Вл. Младенов<sup>1</sup>, Г. Деримачковски<sup>1</sup>, И. Салтиров<sup>2</sup>, С. Николов<sup>2</sup>,  
В. Марияновски<sup>3</sup>, И. Дечев<sup>4</sup>, Н. Колев<sup>5</sup>, Л. Петкова<sup>6</sup>, К. Давидов<sup>7</sup>, В. Хаджиев<sup>8</sup>

<sup>1</sup>Клиника по урология, УМБАЛ "Александровска", София; <sup>2</sup>Клиника по урология, ВМА, София; <sup>3</sup>Клиника по урология, УМБАЛСМ "Н. И. Пирогов", София; <sup>4</sup>Клиника по урология, УМБАЛ "Св. Георги", Пловдив; <sup>5</sup>Клиника по урология, УМБАЛ "Д-р Г. Странски", Плевен; <sup>6</sup>Клиника по урология, МБАЛ "Св. Анна-Варна", Варна; <sup>7</sup>Отделение по урология, МБАЛ "Токуда", София; <sup>8</sup>Катедра по статистика, Икономически Университет, Варна

P. PANCHEV<sup>1</sup>, P. SIMEONOV<sup>1</sup>, D. MLADENOV<sup>1</sup>, M. GEORGIEV<sup>1</sup>, K. YANEV<sup>1</sup>, V. VASILEV<sup>1</sup>,  
PL. DIMITROV<sup>1</sup>, VL. MLADENOV<sup>1</sup>, G. DERIMACHKOVSKI<sup>1</sup>, I. SALTIROV<sup>2</sup>, S. NIKOLOV<sup>2</sup>,  
V. MARIYANOVSKI<sup>3</sup>, I. DECHEV<sup>4</sup>, N. KOLEV<sup>5</sup>, L. PETKOVA<sup>6</sup>, K. DAVIDOFF<sup>7</sup>, C. HADZHIEV<sup>8</sup>

<sup>1</sup>Clinic of Urology, University Hospital "Aleksandrovska" Sofia; <sup>2</sup>Clinic of Urology, Military Medical Academy, Sofia; <sup>3</sup>Clinic of Urology, UMHATEM "Pirogov", Sofia; <sup>4</sup>Clinic of Urology, University Hospital "St. George", Plovdiv; <sup>5</sup>Clinic of Urology, University Hospital "Dr Stransky" Pleven; <sup>6</sup>Clinic of Urology, University Hospital "St. Anna Varna" Varna; <sup>7</sup>Clinic of Urology, "Tokuda" Sofia; <sup>8</sup>Department of Statistics, University of Economics, Varna

**РЕЗЮМЕ.** Екстракорпоралната литотрипсия (ESWL) е първи избор на лечение за повечето бъбречни камъни с размери под 2 см. Neorenal Forte е специална комбинация от фитоекстракти, широко използвана в лечението на уролитиаза и като медикаментозна експулсивна терапия за камъни в бъбречната система.

**ЦЕЛ НА НАБЛЮДЕНИЕТО:** Цел на наблюдението е да се оцени и сравни ефективността и безопасността на 2-месечното приложение на Neorenal Forte, Uronat, Rowatinexили Cyston при пациенти с уролитиаза след екстракорпорална литотрипсия. Вторична цел представлява определянето на периода, за който се пос-



тига пълно елиминиране на конкрементите след началото на експулсивната терапия.

**Дизайн, участници и проследявани параметри:** Мултицентровото съпоставително наблюдение е проведено в 7 клинични центъра. Проследени са 142 пациенти, разпределени по реда на хоспитализирането им в една от четирите терапевтични групи. В хода на наблюдението са проследявани следните параметри: размер на резидуални фрагменти, измерени чрез трансабдоминална ехография; сила на болката, измерена чрез визуална аналогова скала (VAS), спонтанна елиминация на фрагментите, оценена чрез наличие или липса на резидуални фрагменти на контролна ехография и безопасност на изследваните средства.

Данните са обработени посредством статистическите програми SPSS 16.0 и STATA 10.1, като различията между групите са оценявани статистически посредством ANOVA или F-test, а също и с двустранен и едностранен t-test.

**Резултати:** Получените резултати удовлетворяват поставените цели на наблюдението и показват, че Neorenal Forte подпомага спонтанната елиминация на фрагменти и болковата симптоматика след SWL, в значително по-голяма степен от Rowatinex, Uronat и Cyston.

Neorenal Forte, прилаган след SWL, подобрява по-демонстративно спонтанната елиминация на фрагменти, намалява наличието и степента на болка при спонтанната елиминация спрямо другите изследвани препарати. В хода на лечението е наблюдавана спонтанната елиминация на резидуални фрагменти на конкрементите и в четирите изследвани групи, като резултатите са най-отчетливи на 60-я ден от началото на лечението. Neorenal Forte значително превъзхожда останалите 3 проследявани групи, като в края на проучването разликата спрямо Rowatinex, Uronat и Cystone е статистически значима  $/p = 0.001$ ;  $p = 0.001$  и  $p = 0.000$ , респ./ . Освен наличието на пълна елиминация на конкрементите, се наблюдава и значителна редукция в средния размер на резидуалните бъбречни конкременти - от 12.5 mm в началото до 0.5 mm в края на лечението, отчетливо се забелязва и по-бързото действие на Neorenal Forte спрямо всички останали лекарствени средства. Още на 8-я ден разликата между него и останалите три препарата вече става статистически значима, като тя се запазва такава до края на изследвания период. На 60-я ден от лечението 84.9% ( $n=45$ ) от пациентите в групата на Neorenal Forte са елиминирали напълно фрагментите на бъбречните си конкременти, спрямо 38.7% ( $n=12$ ) от пациентите, третирани с Rowatinex и по 34.50% ( $n=10$ ) от пациентите, третирани с Uronat и Cystone. Neorenal Forte значително превъзхожда останалите 3 групи също и по отношение на редуциране на силата на болката. В края на лечението, 90.6 % от пациентите в тази група не изпитват никаква болка, докато в останалите 3 групи процентът на пациентите без болка варира между 48.3% и 61.3%, като разликите между четирите групи са статистически значими  $/p < 0.001$ . При нито един от използваните препарати не са наблюдавани нежелани странични реакции, свързани с прилаганото лечение.

**Заклучение:** Neorenal Forte подобрява спонтанната елиминация на бъбречните конкременти и свързаната с нея болка значително по-бързо и по-ефективно, отколкото Rowatinex, Uronat и Cystone. Високата ефективност и бързото действие на Neorenal Forte го налагат като средство на първи избор за спонтанно експулсиране на бъбречни камъни.

**КЛЮЧОВИ ДУМИ:** Уролитуаза, Бъбречни камъни, Екстракорпорална литотомия (ESWL), Neorenal Forte, Uronat, Rowatinex, Cyston



23. П. Генов, Н. Колев, Вл. Дунев. Първична преждевременна еякулация- връзка между възраст и тежест на симптомите. Урология и ендоеурология 2017. том. 23, бр. 1: 9-12. ISSN: 2535-0560

ОРИГИНАЛНИ СТАТИИ

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## ПЪРВИЧНА ПРЕЖДЕВРЕМЕННА ЕЯКУЛАЦИЯ - ВРЪЗКА МЕЖДУ ВЪЗРАСТ И ТЕЖЕСТ НА СИМПТОМИТЕ

П. Генов\*, Н. Колев, Вл. Дунев

Клиника по урология  
УМБАЛ „Г. Странски“, Плевен  
Отделение по урология\*  
МБАЛ РУСЕ АД, Русе

## LIFELONG PREMATURE EJACULATION - CORRELATION BETWEEN AGE AND SEVERITY OF SYMPTOMS

P. Genov\*, N. Kolev, Vl. Dunev

Clinic of urology  
UMHAT „G. Stranski“, Pleven  
Department of Urology\*  
MHAT „Ruse“, Ruse

### РЕЗЮМЕ

Преждевременната еякулация е най - често срещаната сексуална дисфункция при мъжете, въпреки това тя не е добре проучена. Тя се класифицира като "lifelong" (първична) и „acquired“ (вторична). Нейната честота достига до 30% при мъжете от 18 до 59 години в различните държави.

### Цел

Нашата цел беше да проучим връзката между възрастта и тежестта на симптомите при мъже с първична преждевременна еякулация.

### Материал и методи

Всички 48 пациенти с първична преждевременна еякулация между 18 и 39 години бяха разделени на 3 групи според тяхната възраст. Първа група от 18 до 24 години - 16 пациента, втора група от 25 до 31 години- 22 пациента, трета група от 32 до 39 години- 10 пациента. Всички пациенти бяха изследвани относно тежестта на техните симптоми посредством въпросниците за Диагностика на преждевременната еякулация и Профил на преждевременната еякулация. На всички пациенти беше проведено също и изследване за чувствителност на пениса.

### Резултати

Средният резултат за трите групи от Въпросника за диагностика на преждевременната еякулация (PEDT score) беше 17 (между 14 и 20). В първата

### ABSTRACT

Premature Ejaculation (PE) is the most common male sexual dysfunction and it is poorly understood. PE is classified as "lifelong" (primary) or "acquired"(secondary). In different countries among the men between 18 and 59 years old it's frequency is up to 30%.

### Objectives

Our aim is to investigate the correlation between age and severity of symptoms in men with lifelong premature ejaculation.

### Material and methods

Fourty-eight patients with lifelong premature ejaculation between 18-39 years old were divided in 3 groups according to their age. First group - 18-24 years old - 16 patients, second group - 25-31 years old- 22 patients, third group - 32-39 years old - 10 patients. All patients were investigated about their severity of symptoms using PEDT and PEP questionnaires. Evaluation of penile sensitivity also was performed in all of them.

### Results

The median PEDT score was 17 (between 14 and 20) for all patients. First group - 18-24 years old - PEDT score was 18, for the second group 25-31 years old - PEDT score was 16.73 and for the last third group 32-39 years old was 16. The youngest patients from the first group shows the worst results of ejaculatory

група от 18 до 24 години резултатът беше 18, във втората група от 25 до 31 години - 16.73, а в третата група от 32 до 39 години резултатът беше 16.

Най-младите пациенти от първата група показаха най-лоши резултати по отношение на еякулаторен контрол, стрес и тревожност от всички четири показателя на въпросника за Профил на преждевременната еякулация (PEP), в сравнение с другите две групи. Биотензиометричните изследвания показаха намаляване на чувствителността на пениса с напредване на възрастта.

#### Изводи

Съществува връзка между възрастта и тежестта на симптомите при мъже с първична преждевременна еякулация. Най-младите мъже от първата група на нашето проучване имат най-тежко изразени симптоми на преждевременна еякулация, в сравнение с по-възрастните пациенти от другите две групи. Разбира се допълнителни проучвания са необходими, за да се докаже възрастовата зависимост при пациентите с първична преждевременна еякулация.

**Ключови думи:** преждевременна еякулация, чувствителност на пениса, биотензиометрия

Преждевременната еякулация (ПЕ) е най-често срещаната сексуална дисфункция при мъжете, въпреки това тя не е добре проучена. Нейната честота достига до 30% при мъжете от 18 до 59 години в различните държави.

Етиологията на преждевременната еякулация е неясна. Като причини за възникването ѝ се посочват тревога (безпокойство), свръхчувствителност на пениса и дисфункция на 5-HT рецепторите (1, 2, 3).

Преждевременната еякулация се дели най-общо на първична (появяваща се от началото и почти при всички полови контакти) и вторична (ситуационна - появяваща се рядко при определени провокиращи фактори).

Най-често за поставяне на диагнозата се използва Въпросника за диагностика на преждевременната еякулация (PEDT), а за проследяване и оценка на ефекта от лечението се използва въпросника за Профил на преждевременната еякулация (PEP) (4, 5, 6).

#### ЦЕЛ

Нашата цел беше да проучим връзката между

control, distress and bother in all four measurements of PEP questionnaire comparing to the other two groups. Biotensiometry measurements of penile sensitivity shows decreasing of values in older patients.

#### Conclusions

There is correlation between age and symptoms in men with lifelong premature ejaculation. The youngest patients from the first group have severe symptoms compare to the older patients from the other two groups. Of course further more investigations are needed to prove the age dependency of symptoms in men with lifelong premature ejaculation.

**Key words:** premature ejaculation, penile sensitivity, biotensiometry

възрастта и тежестта на симптомите при първична преждевременна еякулация

#### МАТЕРИАЛ И МЕТОДИ

Всички 48 пациенти с първична преждевременна еякулация между 18 и 39 години бяха разделени на 3 групи според тяхната възраст. Първа група от 18 до 24 години - 16 пациента, втора група от 25 до 31 години - 22 пациента, трета група от 32 до 39 години - 10 пациента (фиг. 1).



Фигура 1. Разпределение на пациентите по възраст

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Original Article

OPEN RETROPUBIC AND ROBOT-ASSISTED RADICAL PROSTATECTOMY IN PROSTATE CARCINOMA: ADVANTAGES OF METHODS

Nikolay H. Kolev,  
Jitian A. Atanasov,  
Vladislav R. Dunev,  
Boyan A. Stoykov,  
Rumen P. Kotsev,  
Alexander Vanov,  
Fahd Al-Shargabi,  
Pencho T. Tonchev<sup>1</sup>,  
Sergey D. Iliev<sup>1</sup>,  
Toni I. Stoyanov<sup>2</sup>

Department of Urology,  
Medical University – Pleven,  
Bulgaria

<sup>1</sup>Department of Surgery,  
Medical University – Pleven,  
Bulgaria

<sup>2</sup>Department of General Surgery,  
General Hospital of Villarobledo,  
Spain

Corresponding Author:

Nikolay H. Kolev  
Clinic of Urology,  
University Hospital – Pleven  
8a, G. Kochev Blvd.  
Pleven, 5800  
Bulgaria  
e-mail: kolevmd@yahoo.com

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Summary

Prostate cancer (PC) is the most common type of cancer in men in a number of countries. The choice of surgical technique for radical prostatectomy (RP) concerns both patients and urologists. The choice is not easy to make, since data is still limited due to the lack of large multicentric randomized research trials. For three years (2011-2014), 244 patients with limited prostate cancer were operated in the Urology Clinic of the University Hospital in Pleven. Robot-assisted radical prostatectomy (RARP) was performed on 35 patients (14%), open retropubic radical prostatectomy (ORP) – on 199 patients (81%), and laparoscopic RP – on 12 patients (5%). The preoperative and post-op results from the first two groups were compared. For the follow-up period of 12 months, functional results in 82 patients of the ORP group were compared to the results in the 35 patients of the RARP group. The operative time was significantly longer in the RARP group, and blood loss was lower. The catheter stay was shorter in patients with RARP. The percentage of significant postoperative complications was 0% in the patients with RARP and 3% in the patients with an ORP. RARP patients demonstrated better continence: 91% vs. 87% and erectile function 46% vs. 40% at 12 months.

**Key words:** robot-assisted radical prostatectomy, open radical prostatectomy, functional results

Introduction

In recent years, prostate cancer (PC) has had the highest incidence of cancers in men, as many of the current studies have shown [1]. Today the surgical treatment performed in the early stages of the disease remains the most efficient method for a permanent cure [2]. There were 20 897 registered patients with PC in Bulgaria for 2009. Improvement in diagnostic methods during the last few years resulted in an increased detection: 2783 new cases were registered in 2015. The number of patients treated surgically in Bulgaria has also increased. PC is diagnosed relatively late, in the advanced stages in Bulgaria as compared to Europe and the United States, thus reducing the survival rate of the patients (Table 1).

Radical prostatectomy (RP) includes removal of the prostate gland along with the seminal vesicles, with an option for extirpation of the regional lymph nodes.

Retropubic radical prostatectomy is a well-



25. Nikolay H. Kolev, Alexander Vanov, Vladislav R. Dunev, Rumen P. Kotsev, Boyan A. Stoykov, Fahd Al-Shargabi, Strati S. Stratev, Jitian A. Atanasov, Manish Sachdeva, Pencho T. Tonchev, Sergey D. Iliev, Vladimir R. Radev. Urinary Tract Desobstruction in Patients with Malignant Neoplasms of the Uterine Cervix. Journal of Biomedical and Clinical Research. Vol. 9, No. 2, 2016, 149-154 pp. ISSN 1313-6917

————— *Kolev N, et al. Urinary tract desobstruction in patients with malignant neoplasms ...*

**Original Article**

**URINARY TRACT DESOBSTRUCTION IN PATIENTS WITH MALIGNANT NEOPLASMS OF THE UTERINE CERVIX**

**Nikolay H. Kolev,  
Alexander Vanov,  
Vladislav R. Dunev,  
Rumen P. Kotsev,  
Boyan A. Stoykov,  
Fahd Al-Shargabi,  
Strati S. Stratev,  
Jitian A. Atanasov,  
Manish Sachdeva,  
Pencho T. Tonchev<sup>1</sup>,  
Sergey D. Iliev<sup>1</sup>,  
Vladimir R. Radev<sup>2</sup>**

*Department of Urology,  
Medical University – Pleven,  
Bulgaria*

*<sup>1</sup>Department of Surgery,  
Medical University – Pleven,  
Bulgaria*

*<sup>2</sup>Department of Anaesthesiology and  
Intensive Care,  
Medical University – Pleven,  
Bulgaria*

**Corresponding Author:**

Nikolay H. Kolev  
Clinic of Urology,  
University Hospital – Pleven  
8a, G. Kochev Blvd.  
Pleven, 5800  
Bulgaria  
e-mail: kolevmd@yahoo.com

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**Summary**

Cancer of the cervix causes internal, external compression or both of the upper urinary tract in 50-60% of patients in advanced stages. Retrograde stenting is the most widely used technique for desobstruction of the upper urinary tract in urology practice. Diversion of urine flow is an alternative, achieved by nephrostomy of one or both kidneys. We studied retrospectively 33 women with upper urinary tract obstruction caused by carcinoma of the uterine cervix operated on between March 2014 and March 2015 in the urology clinic at the University Hospital in Pleven, Bulgaria. A percutaneous nephrostomy (PNS) was placed in 17 patients, and 11 patients had a retrograde catheterization with ureteral stent type JJ. Five patients were treated with both methods. Placement of a JJ stent was the first choice procedure for all patients since it provides a better quality of life. PNS improves renal function faster than retrograde JJ stenting. Therefore, the first method of choice for patients with an untreated primary cervical, uterine cancer is the placement of PNS. Retrograde JJ stenting is the method of choice in patients who undergo surgery and radiation therapy without a relapse of the disease.

**Key words:** obstruction of upper urinary tract, percutaneous nephrostomy, retrograde ureter stenting, desobstruction

**Introduction**

Cancer of the cervix worldwide occupies the second place among all malignant neoplasms of the female genitalia. According to the national cancer registry, it is fourth in frequency and accounts for 7.2% of all malignant diseases in women in Bulgaria [1].

The incidence of cervical cancer increases with age and reaches its peak in the 50-54-year-olds. About 2/3 of the patients (64.3%) are diagnosed in the initial (first and second) stage of the disease, and 17.1% are diagnosed in the third and fourth stage (Figure 1) [1].

Tumor growth causes internal and external compression of the upper urinary tract due to a proximity of the anatomical structures in the pelvis.

26. Toni I. Stoyanov, Emilio Corral-Fernandez, Antonio Melero-Abellan, Pablo Sarduy-Fernandez, Paloma Casado-Santamaria, Elias Garcia-Grimaldo, Julio Valer Corellano, Kaloyan T. Ivanov, Nikolay H. Kolev, Pencho T. Tonchev. Appendiceal Recurrent Colic Due to *Enterobius Vermicularis* Infection in a 14-year-old Female Patient. Journal of Biomedical and Clinical Research. Vol. 9, No. 2, 2016, 159-162 pp. *ISSN* 1313-6917

— Stoyanov T, et al. Appendiceal recurrent colic due to enterobius vermicularis infection ...

### Case Report

## APPENDICEAL RECURRENT COLIC DUE TO ENTEROBIUS VERMICULARIS INFECTION IN A 14-YEAR-OLD FEMALE PATIENT

**Toni I. Stoyanov,  
Emilio Corral-Fernandez,  
Antonio Melero-Abellan,  
Pablo Sarduy-Fernandez,  
Paloma Casado-Santamaria,  
Elias Garcia-Grimaldo,  
Julio Valer Corellano<sup>1</sup>,  
Kaloyan T. Ivanov<sup>2</sup>,  
Nikolay H. Kolev<sup>3</sup>,  
Pencho T. Tonchev<sup>3</sup>**

*Department of General Surgery,  
General Hospital of Villarobledo,  
Spain*

*<sup>1</sup>Department of Pathology,  
University Hospital of Albacete,  
Spain*

*<sup>2</sup>Department of Surgery,  
MHAT – Medica, Ruse,  
Bulgaria*

*<sup>3</sup>Medical University – Pleven,  
Bulgaria*

### Corresponding Author:

Toni I. Stoyanov  
Department of General Surgery,  
General Hospital of Villarobledo,  
Avenue Miguel de Cervantes,  
c/v aCtra El Provencio km 0.3,  
Villarobledo (Albacete), 02600,  
Spain  
e-mail: dr\_stoyanov@yahoo.com

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### Summary

Acute appendicitis due to *Enterobius vermicularis*, usually known as pinworm, is very rare and affects mostly children. According to different authors, it is controversial whether pinworms cause inflammation of the appendix or appendiceal colic only. We present a case of a 14-year-old female with three subsequent hospitalizations in 1 month due to abdominal pain in the right lower abdomen, with rebound tenderness, normal CT scan and laboratory findings. During the last hospitalization, laparoscopic appendectomy was performed. Intraoperatively multiple pinworms were found in the appendix. These were trapped by a stercolith in the appendicular base in a non-inflamed and histologically normal appendix. Two oral doses of mebendazole were administered postoperatively. Uneventful postoperative period and postoperative follow-up showed lack of symptoms six months after the operation. Despite the widespread idea that acute appendicitis due to *Enterobius vermicularis* is very rare, it should always be considered in young female patients with repeated abdominal pain in the right lower abdomen with normal laboratory and radiologic findings.

**Key words:** *Enterobius vermicularis*, acute appendicitis, laparoscopic appendectomy

### Introduction

*Enterobius vermicularis*, also called pinworm, is a cause for a widespread parasitic helminthes infection, assessed to affect up to 209 million people worldwide [1]. *Enterobius* ova were found in human coprolites from 7800 BC [2]. Fabricius Hildanus was the first to report pinworms in appendix in 1634 [3]. Many authors considered this infection not to be a serious disease because of its low pathogenicity. However, *E. vermicularis* has been reported to be involved in various surgical disorders such as colitis, perianal abscess or granulomas, significant morbidity in females with ectopic infections, chronic pelvic pain, pelvic inflammatory disease. It is also associated with acute appendicitis [4]. The relationship of pinworm infection with acute appendicitis fluctuates from 0.2 to 41.8% [5]. The role of *E. vermicularis* in acute appendicitis has been discussed since it was found in the appendiceal lumen in 1898. However, revision of the literature

27. Vladimir R. Radev, Radko N. Radev, Daniela A. Arabadzhieva, Vladin I. Petrov, Nikolay H. Kolev. Demographic Changes in the Population of Bulgaria as Challenges for Anaesthesiologists. Journal of Biomedical and Clinical Research. Vol. 9, No. 2, 2016, 126-130 pp. /ISSN 1313-6917

**Original Article**

**DEMOGRAPHIC CHANGES IN THE POPULATION OF BULGARIA AS CHALLENGES FOR ANAESTHESIOLOGISTS**

**Vladimir R. Radev,  
Radko N. Radev,  
Daniela A. Arabadzhieva<sup>1</sup>,  
Vladin I. Petrov<sup>2</sup>,  
Nikolay H. Kolev<sup>3</sup>**

*Department of Anaesthesiology and  
Intensive Care,  
Medical Faculty,  
Medical University – Pleven,  
Bulgaria*

*<sup>1</sup>Department of Anaesthesiology and  
Intensive Care,  
University Hospital – Rouse,  
Bulgaria*

*<sup>2</sup>Department of Urology,  
University Hospital – Pleven,  
Bulgaria*

**Corresponding Author:**

Vladimir Radev,  
Clinic of Anaesthesiology and Intensive  
Care,  
University Hospital – Pleven,  
8a, G. Kochev Blvd.,  
Pleven, 5800  
Bulgaria  
email: vladimirradev@gmail.com

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**Summary**

In the past two decades, the demographic crisis in Bulgaria has been widely debated. According to the National Statistical Institute (NSI), the proportion of people aged 65 and over is increasing, despite the general population decline in the country. To investigate whether the age structure of patients operated on has changed during the past 10 years and assess the need to reorganize the training of anesthetists, a retrospective study in the anesthesia electronic database of the University Hospital in Rouse was carried out. The data of anesthesia performed by anesthesiologists in 2005, 2010 and 2015 in patients aged 65 and over were summarized. The distribution of these patients by ASA Physical Classification System and frequency of complications during anesthesia were analyzed. The average annual number of anaesthesias for the three years was almost unchanged and amounted to about 5500. The proportion of patients aged 65 and over increased from 30.54% in 2005 to 35.72% in 2010, and 37.81% in 2015. The distribution of patients in according to the ASA Classification changed significantly: the percentage of patients ASA I-II dropped from 36.19% in 2005 to 11.85% in 2015. The patients in the ASA III-IV groups for the three analyzed years was 41.86%, 58.66% and 65.30%, respectively, and this was mainly due to the increase in the ASA IV patients. It is necessary to build multidisciplinary teams and prepare specialized protocols for behavior in geriatric patients. It is imperative that anesthesiologists possess specialized knowledge about age-related organ changes and their effects on anesthesia.

**Key words:** Geriatric anesthesiology, Bulgarian demographics, descriptive statistic

**Introduction**

The proportion of adults in Bulgaria increases and this increase leads to significant changes in population structure. In older patients, adverse effects and complications associated with anesthesia and surgery are more likely to occur for three main reasons: first, they have at least one but usually more than one co-morbidities, second, they have changed and impaired pharmacokinetics and pharmacodynamics, and third – they have reduced organ function [1].

The aim of this study was to identify the changes of the age structure of patients operated on in a



28. Boyan A. Stoykov, Nikolay H. Kolev, Rumen P. Kotsev, Vladislav R. Dunev, Fahd Al-Shargabi, Pencho P. Genov, Alexander Vanov, Jitian A. Atanasov, Manish Sachdeva, Pencho T. Tonchev, Maria I. Koleva. Preoperative Evaluation of Sexual Function in Patients Undergoing Bilateral Nerve-sparing Radical Retropubic Prostatectomy. *Journal of Biomedical and Clinical Research*. Vol. 10, No. 1, 2017, 40-46 pp. *ISSN* 1313-6917

**Original Articles**

**PREOPERATIVE EVALUATION OF SEXUAL FUNCTION IN PATIENTS UNDERGOING BILATERAL NERVE-SPARING RADICAL RETROPUBIC PROSTATECTOMY**

**Boyan A. Stoykov,  
Nikolay H. Kolev,  
Rumen P. Kotsev,  
Fahd Al-Shargabi,  
Pencho P. Genov<sup>1</sup>,  
Aleksandar Vanov,  
Jitian A. Atanasov,  
Manish Sachdeva,  
Pencho T. Tonchev<sup>2</sup>,  
Maria I. Koleva<sup>3</sup>**

*Department of Urology,  
Medical University – Pleven,  
Bulgaria*

*<sup>1</sup>Department of Urology,  
UMHAT Ruse, Bulgaria*

*<sup>2</sup>Department of Surgery,  
Medical University – Pleven,  
Bulgaria*

*<sup>3</sup>Clinic Physiomed,  
Pleven, Bulgaria*

**Corresponding Author:**

Boyan Atanasov  
Clinic of Urology,  
University Hospital – Pleven  
8a, G. Kochev Blvd.  
Pleven, 5800  
Bulgaria  
e-mail: [atanasovmd@yahoo.com](mailto:atanasovmd@yahoo.com)

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**Summary**

During the last few years, prostate cancer is more frequently diagnosed in young patients. This lays emphasis on the necessity to preoperatively evaluate the sexual function in patients undergoing bilateral nerve sparing radical retropubic prostatectomy (BNSRRP). The aim of our study was to make an objective evaluation of the basic sexual function in patients with clinically localized prostate cancer and candidates for BNSRRP, using internationally validated questionnaires. We also tried to find a correlation between these questionnaires and the individual assessment of candidates, on one hand, and between comorbidities of the patients and degree of erectile dysfunction (ED), on the other hand. From January 2014 to March 2017, at the urology clinic of University Hospital – Pleven, 64 patients opted BNSRRP and reported to have preserved erectile function (EF), wishing to maintain this function after surgery. The patients' histories and comorbidities were recorded on the day of hospitalization. The subjective assessment of the patients' potency was compared with International Index of Erectile Function (IIEF). According to the EF domain of the IIEF, baseline EF was assessed in 28 patients. Twelve patients had mild ED, 9 patients had mild to moderate ED, seven patients had moderate, and eight had severe ED. The results showed that a significant number of patients with clinically localized prostate cancer who were candidates for BNSRRP reported to be fully potent but actually had impaired EF preoperatively. There was also a pronounced correlation between concomitant diseases and EF.

**Key words:** sexual function, erectile function, erectile dysfunction, bilateral nerve-sparing radical retropubic prostatectomy

**Introduction**

Many recent studies have identified prostate cancer as the most common cancer in men [1]. Every year, 100 000 cases of prostate malignancies are diagnosed in Europe. This number tends to increase during early screening of the prostate. According to the recommendations of the European Urology Association 2017, bilateral or unilateral nerve-sparing radical prostatectomy remains the first choice in patients with localized prostate cancer, life expectancy over 10 years, and normal preoperative

29. Pencho P. Genov, Nikolay H. Kolev, Rumen P. Kotsev, Vladislav R. Dunev, Boyan A. Stoykov, Alexander Vanov, Jitian A. Atanasov, Pencho T. Tonchev. Quality of Sexual Life after microsurgical Penile Denervation in Man with Primary Premature Ejaculation. Journal of Biomedical and Clinical Research. Vol. 10, No. 2, 2017, 46-50 pp. *ISSN* 1313-6917

**Original Articles**

**QUALITY OF SEXUAL LIFE AFTER MICROSURGICAL PENILE  
DENERVATION IN MEN WITH PRIMARY PREMATURE EJACULATION**

**Pencho P. Genov,  
Nikolay H. Kolev<sup>1</sup>,  
Rumen P. Kotsev<sup>1</sup>,  
Vladislav R. Dunev<sup>1</sup>,  
Boyan A. Stoykov<sup>1</sup>,  
Aleksander A. Vanov<sup>1</sup>,  
Jitian A. Atanasov<sup>1</sup>,  
Pencho T. Tonchev<sup>2</sup>**

*Department of Urology,  
UMHAT Ruse, Bulgaria  
<sup>1</sup>Department of Urology,  
Medical University – Pleven,  
Bulgaria*

*<sup>2</sup>Department of Surgery,  
Medical University – Pleven,  
Bulgaria*

**Corresponding Author:**

Pencho P. Genov  
Department of Urology,  
University Hospital - Ruse  
2, Nezavisimost Str.,  
Ruse, 7000  
Bulgaria  
e-mail: genov\_p@abv.bg

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**Summary**

Premature ejaculation (PE) is the most common sexual dysfunction in men, yet it is not well studied. Its frequency reaches 30% for men from 18 to 59 years of age in different countries. The aim of this article was to investigate the quality of sexual life in men with primary PE operated on with microsurgical penile denervation, using the Brief Male Sexual Functional Inventory (BMSFI). From September 2011 to March 2014, 22 patients were operated on with microsurgical penile denervation in the urology clinic of the University Hospital - Pleven and the Department of Urology at UMHAT Ruse AD. The mean result from the BMSFI in patients was 22 points preoperatively, indicating significant worsening of sexual function and quality of life in all five questionnaire domains. After surgery, the results increased to 28, 33 and 39 respectively, at 3, 6 and 12 months, respectively. Premature ejaculation not only leads to problems in controlling ejaculation but also worsens the overall sexual function and quality of life of patients.

**Key words:** premature ejaculation, sexual function, microsurgical denervation

**Introduction**

Premature ejaculation (PE) is the most common sexual dysfunction in men, yet it is not well studied. Its frequency reaches 30% for men from 18 to 59 years of age in different countries.

The etiology of PE is unclear. As a reason for its occurrence, mention is made of anxiety, penis hypersensitivity and dysfunction of 5-HT receptors.

Premature ejaculation is generally divided into primary (emerging from the beginning and almost all sexual contacts) and secondary (situational – occurring rarely under certain provoking factors) [1].

Treatment of PE is conservative, but none of the validated methods gives good and lasting results, and the rate of discontinuation of treatment for patients is very high. Surgical treatment is in the research phase and its role is controversial [2].

Our goal was to investigate the quality of sexual life in men with primary PE operated with microsurgical penile denervation (MSDP) using the Brief Male Sexual Functional Inventory (BMSFI) preoperatively on the third, sixth and twelfth month after operative

30. Boyan A. Stoykov, Nikolay H. Kolev, Rumen P. Kotsev, Fahd Al-Shargabi, Pencho P. Genov, Alexander Vanov, Jitian A. Atanasov, Manish Sachdeva. Low-Intensity Extracorporeal Shockwave Therapy – a New Approach in the Treatment of Erectile Dysfunction after Radical Prostatectomy. Journal of Biomedical and Clinical Research. Vol. 10, No. 2, 2017, 104-111 pp. *ISSN* 1313-6917

**Original Articles**

**LOW-INTENSITY EXTRACORPOREAL SHOCKWAVE THERAPY – A NEW APPROACH IN THE TREATMENT OF ERECTILE DYSFUNCTION AFTER RADICAL PROSTATECTOMY**

**Boyan A. Stoykov,  
Nikolay H. Kolev,  
Rumen P. Kotsev,  
Fahd Al-Shargabi,  
Pencho P. Genov<sup>1</sup>,  
Aleksandar Vanov,  
Jitian A. Atanasov,  
Manish Sachdeva,  
Pencho T. Tonchev<sup>2</sup>,  
Maria I. Koleva<sup>3</sup>**

*Department of Surgical Nursing,  
Medical University – Pleven,  
Bulgaria*

*<sup>1</sup>Department of Urology,  
UMHAT – Ruse,  
Bulgaria*

*<sup>2</sup>Department of Surgery,  
Medical University – Pleven,  
Bulgaria*

*<sup>3</sup>Clinic Physiomed,  
Pleven,  
Bulgaria*

**Corresponding Author:**

Boyan A. Stoykov  
Department of Surgical Nursing,  
Medical University – Pleven  
1, St. Kl. Ohridski Str.  
Pleven, 5800  
Bulgaria  
e-mail: atanasovmd@yahoo.com

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**Summary**

The experience accumulated with low-intensity extracorporeal shock wave therapy (LI-ESWT) from international clinical trials has demonstrated its safety, efficacy and good tolerance in treatment of erectile dysfunction (ED). The aim of this retrospective study was to investigate the effect of LI-ESWT in patients with ED after bilateral nerve sparing radical surgery for prostate cancer. Twenty-seven patients underwent bilateral nerve sparing radical retropubic prostatectomy (BNSRRP) at the clinic of urology of the university hospital in Pleven between January 2016 and December 2016. Twenty-one of these patients had pre-operative preserved erectile function (EF), as reported according to the International Index of Erectile Function (IIEF-5). Postoperatively, these 21 patients experienced a mild (18-21 points) impairment of EF. In 10 patients (group 1), LI-ESWT was performed. The procedure was performed once a week for 6 weeks with a LI-ESWT (BTL 6000 SWT Topline) instrument. The reading was obtained with IIEF-5 on the third and sixth month after the end of therapy. The other 11 patients (group 2) were used as a control group and did not receive treatment. In 5 patients in group 1, a recovery of EF (> 21 points) as per IIEF-5 was recorded at the third month after treatment. In two patients, the same score was recorded at the sixth month. No improvement was seen in three men in group 1. In the controls (group 2), a spontaneous EF improvement in four patients at sixth month was registered. Despite the small number of patients and their short-term follow-up, our initial results indicate that LI-ESWT is effective, safe and well-tolerated. It could be an alternative for early penis rehabilitation in patients who have undergone BNSRRP.

**Key words:** erectile function, erectile dysfunction, low intensity extracorporeal shock wave therapy, bilateral nerve sparing radical retropubic prostatectomy

**Introduction**

Currently, the most widely used agents for the treatment of erectile dysfunction (ED) after radical prostatectomy (RP) are 5-phosphodiesterase inhibitors [1, 2]. Despite their indisputable effectiveness, these drugs cannot correct any changes that have occurred in the pathophysiology of the penis after the RP [3, 4]. This calls for finding new methods for recovering erectile function (EF) in these patients. As such, in the



31. Н. Колев, Б. Атанасов, Ж. Атанасов, А. Ванов. Оперативни усложнения след отворена и робот-асистирана радикална простатектомия при простатен карцином. Национална Конференция по Хирургия с международно участие на тема "Усложнения на конвенционалната, лапароскопската и робот-асистираната хирургия". Доклади. 2017 г. Стр. 409-414. ISBN 978-954-756-209-3 COBISS.BG-ID 1283909604

### ХІІІ. ДРУГИ

#### ОПЕРАТИВНИ УСЛОЖНЕНИЯ СЛЕД ОТВОРЕНА И РОБОТ-АСИСТИРАНА РАДИКАЛНА ПРОСТАТЕКТОМИЯ ПРИ ПРОСТАТЕН КАРЦИНОМ

Н. Колев, Б. Атанасов, Ж. Атанасов, А. Ванов

*Клиника по урология*

*Медицински университет – Плевен*

##### Резюме

Карциномът на простатната жлеза (КПЖ) е най-честият вид рак при мъжете в редица страни. Хирургичното лечение е най-ефикасния метод за излекуване. Често пред нашите пациенти и уролози стои въпросът коя хирургична техника за радикална простатектомия (РП) е за предпочитане, какво е нивото на оперативни усложнения. Отговорите на тези въпроси са трудни и данните са все още ограничени поради липса на обширни многоцентрови рандомизирани прочвания.

Цел]: Да разгледаме ранните и късни усложнения на пациенти оперирани с отворена, ретропубична и робот-асистирана радикална простатектомия (РАРП), да анализираме данните за тяхните функционални резултати (континентност и еректилна функция) в периода на проследяване.

Материали и методи. За период от три години (2011-2014 г.) в Клиника по урология, УМБАЛ „Д-р Георги Странски“ Плевен са оперирани 244 пациенти с ограничен рак на простатната жлеза. При 14% от тях (35 пациенти) е извършена робот-асистирана РП, 199 пациенти са оперирани с отворена РП, а 12 пациенти с лапароскопска РП. Сравнихме следоперативните усложнения на оперираните от първите две групи. В продължение на 12 мес. отчетохме функционалните резултати на оперираните, като от групата с отворена РП налични за проследяване бяха 82 пациенти.

Резултати. Оперативното време беше статистически значимо по-дълго при робот-асистираната група (290 мин. срещу 130 мин.). Кръвозагубата беше статистически значимо по-малка при оперираните с робот пациенти (330 мл. срещу 460 мл.). Престоят на катетъра беше по-къс при пациентите с РАРП. Процентът на значими следоперативни усложнения (Clavien-Dindo III-IV) беше 0% при пациентите с РАРП и 3% при пациентите с отворена РП. Статистически значими разлики при проследените пациенти отчетохме по отношение на функционалните резултати континентност и еректилна функция, в полза на оперираните с робот. Показатели в двете групи дванадесет месеца след операциите бяха съответно 91% срещу 87% и 46% срещу 40%.

Изводи: Резултатите, които получихме показват, че е наличие по-малка кръвозагуба и оперативни усложнения, по-къс катетеризационен и болен период

престой при пациентите с РАРП. Налице е по-кратко оперативно време при пациентите с ОРП. Континентността и еректилната функция при пациентите оперирани с робот-асистиран метод е сигнификантно по-добра.

**Ключови думи:** робот-асистирана радикална простатектомия, отворена радикална простатектомия, усложнения

### **Въведение**

През последните години карциномът на простатната жлеза (КПЖ) заема водещо място по честота сред раковите заболявания при мъжете (1). Към момента хирургичното лечение, извършено в ранен стадий на заболяването остава най-ефикасния метод за трайно излекуване (2). През последното десетилетие минимално инвазивните хирургични техники навлязоха широко в световната урологична практика. Естественото желание на пациентите и лекарите към все по-малко инвазивни методи на лечение, а от друга страна изобретенията и усъвършенстването на съществуващите технологии доведоха до въвеждане на роботизирани системи в хирургичната практика. Радикалната простатектомия (РП) включва отстраняване на простатната жлеза (ПЖ) заедно със семенните мехурчета и евентуално и регионалните лимфни възли. Налице са трудности, които съпровождат извършването на такъв вид операции поради:

- Затруднен достъп поради анатомичното разположение на ПЖ
- Простатата е заобиколена отвсякъде от тъкани, което повишава риска от позитивни хирургични граници и незадоволителни онкологични резултати
- Необходимост от прецизна работа и съхраняване на различни нервни структури за запазване континентността и еректилната функция на пациента
- Използване на множество тъканни шевове и анастомози

Ретропубичната радикална простатектомия е утвърдена оперативна техника с доказани чрез редица рандомизирани клинични проучвания функционални и онкологични резултати. За да бъде приет даден метод като минимално инвазивен трябва да се наложи като алтернатива на отворената хирургична процедура, осигурявайки сходни или по добри резултати свързани с радикалност, болничен престой, качество на живот, усложнения. Робот-асистираната радикална простатектомия (РАРП) е най-съвременния оперативен подход при КПЖ. Роботизирани ръце позволяват финни движения почти невъзможни за човешката ръка. В комбинация с триизмерен, изключително детайлен поглед върху оперативното поле е възможно постигане на прецизен контрол върху нервно-съдовите структури в близост до простатата и възможност за намаляване на най-честите усложнения след РП – инконтиненция и ерекtilни дисфункция.



32. И. Рачев, В. Дунев, Н. Колев, П. Тончев. Следоперативни усложнения при пластични операции за парафином на мъжките генеталии. Национална Конференция по Хирургия с международно участие на тема "Усложнения на конвенционалната, лапароскопската и робот-асистираната хирургия". 2017 г. Доклади. Стр. 414-421 ISBN 978-954-756-209-3 COBISS. BG-ID 1283909604

- Human Services, Centers for Disease Control and Prevention, and National Cancer Institute; 2016. Available at: <http://www.cdc.gov/uses>.
2. Francesco Montorsi, Timothy G. Wilsonb, Raymond C. Rosene, Thomas E. Ahleringd, Walter Artibani, Peter R. Carrollf, Anthony Costello, James A. Easthamh, Vincenzo Ficarra, Giorgio Guazzonij, Mani Menonk, Giacomo Novarai, Vipul R. Patell, Jens-Uwe Stolzenburgm, Henk Van der Poeln, Hein Van Poppel, Alexandre Mottriep. Best Practices in Robot-assisted Radical Prostatectomy: Recommendations of the Pasadena Consensus Panel. *European Urology*, Volume 62 Issue 3, September 2012, Pages 368-381
  3. Tewari A, Srivastava A, Menon M, members of the Vattikuti Institute Prostatectomy Team. A prospective comparison of radical retropubic prostatectomy and robot-assisted prostatectomy: experience in one institution. *BJU Int* 2003; 92: 205–10.
  4. Brown, J.A., Garlitz, C., Gomella, L.G., McGinnis, D.E., Diamond, S.M., and Strup, S.E. (2004). Perioperative morbidity of laparoscopic radical prostatectomy compared with open radical retropubic prostatectomy. *Urologic oncology* 22, 102-106.
  5. Kaul, S., Bhandari, A., Hemal, A., Saveria, A., Shrivastava, A., and Menon, M. (2005). Robotic radical prostatectomy with preservation of the prostatic fascia: a feasibility study. *Urology* 66, 1261-1265.
  6. Patel VR, Coelho RF, Chauhan S, Orvieto MA, Palmer KJ, Rocco B, et al. Continence, potency and oncological outcomes after robotic-assisted radical prostatectomy: early trifecta results of a high-volume surgeon. *BJU Int*. 2010;106:696–702
  7. Walsh PC. Patient-reported urinary continence and sexual function after anatomic radical prostatectomy. *J Urol*. 2000 Jul;164(1):242. p. 59 table 1.
  8. Albertsen PC. Robot-assisted radical prostatectomy - fake innovation or the real deal? *Eur Urol*. 2012 Sep;62(3):365-7

**СЛЕДОПЕРАТИВНИ УСЛОЖНЕНИЯ ПРИ ПЛАСТИЧНИ  
ОПЕРАЦИИ ЗА ПАРАФИНОМ НА МЪЖКИТЕ ГЕНИТАЛИИ  
(ИЛИ ПРИ СВОБОДНА ПЛАСТИКА)**

**Ив. Рачев<sup>1</sup>, В. Дунев<sup>2,3</sup>, Н. Колев<sup>2,3</sup>, П. Тончев<sup>1,3</sup>**

*Отделение по пластична хирургия ;*

*Урологична клиника УМБАЛ „д-р Г. Странски“ Плевен;*

*Катедра „Сестрински Хирургични грижи“ Медицински  
Университет- Плевен*

Инжектирането на парафин с цел уголемяване на половия член все още е честа практика в България. Развива се гранулом тип „чуждо тяло“ (парафином), водещ до редица функционални и козметични усложнения. Единственото ефективно лечение на това състояние е оперативното.

Цел на настоящето проучване е да опише и сравни усложненията при най-често използваните оперативни методи за пластично възстановяване на мъжките гениталии.



**Материал и методи:** Пациенти –2008-2017 год. в Урологична клиника на УМБАЛ „д-р Г. Странски“ Плевен и Урологична клиника „УРОМЕД“ Плевен са оперирани 93 (55+38) пациенти с парафином на гениталиите. Оперативните методи са като следва: Ексцизия -20, Модифициран Сесил(МС) -14, Билатерални скротални ламба (БСЛ)-13, STSG -46 (пластика с разцепен кожен трансплантат). Пациентите са проследени за ранни и късни следоперативни усложнения: ранева инфекция и дехисценция, окосмяване, рецидив, оток на гланса, еректилна дисфункция, деформация и „сбръчкване“. Използвани са статистически методи за дескриптивна статистика, хи-квадрат и метод. Фишер екзактен тест.

**Резултати и дискусия:** Най-добри резултати показва STSG- при 1 пациент имаше деформация, при 17 –оток на гланса, при 13 –дехисценция в основата. Лека еректилна дисфункция на 6 месец следоперативно има при 10% от пациентите с Ексцизия, 14% при МС 15% при БСЛ и при 4% STSG

**Извод:** Пластика с разцепен кожен трансплантат при парафином на пениса е с отлични следоперативни и функционални резултати и най-малко усложнения.

Injection of paraffin in order to enlarge the penis is still common practice in Bulgaria. It led to the so-called -paraffinoma -granuloma type "foreign body", leading to a number of functional and cosmetic problems. The only effective treatment for this condition is operative.

Aim of this study is to describe and compare the complications after most commonly used surgical methods for plastic restoration of male genitalia.

**Material and methods:** Patients treated between 2008-2017 year In Urological Clinic of the University Hospital "Dr. G. Stranski" and Urological Clinic "UROMED". Total of patients were operated 93 (55 + 38). Operating methods were as follows: -20 excisions, modified Cecil (MS) -14, Bilateral scrotal flap (BSL) -13, STSG -46 (plastic with a split-thickness skin graft). Patients were monitored for early and late postoperative complications: wound infection and dehiscence, hirsutism, relapse, swelling of the glans, erectile dysfunction, deformation and "wrinkling".

Statistical methods of descriptive statistics, chi-square and Fischer exact test were used.

**Results and Discussion:** Best results were shown by STSG- 1 patient had a deformation of 17 –edema of the glans and in 13 -dehiscence at the base. Mild erectile dysfunction 6 months post-operation presented 10% of patients with excision, 14% with MS, 15% with and 4% with STSG

**Conclusion:** Plastic with Split-thickness skin grafts in penile paraffinoma has excellent postoperative functional outcomes and least complication

**Въведение** Размерът на пениса е важен за мъжете. За да впечатлят партньорите си и да повишат самочувствието си, някои употребяват

33. Б. Атанасов, Н. Колев, Р. Коцев, В. Дунев, Ф. Шаргаби, П. Генов, А. Ванов, Ж. Атанасов, М. Сачдева. Състояние на еректилната функция на пациентите преди радикална простатектомия. Урология и ендоеурология. 2018. Том 24, бр. 1: 9-16. ISSN: 2535-0560

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## СЪСТОЯНИЕ НА ЕРЕКТИЛНАТА ФУНКЦИЯ НА ПАЦИЕНТИТЕ ПРЕДИ РАДИКАЛНА ПРОСТАТЕКТОМИЯ

Б. Атанасов, Н. Колев, Р. Коцев, В. Дунев, Ф. Шаргаби, П. Генов\*, А. Ванов, Ж. Атанасов, М. Сачдева

Клиника по урология  
УМБАЛ „Г. Странски“, Плевен  
Отделение по урология\*  
МБАЛ „Руса“, Русе

## STATE OF THE ERECTILE FUNCTION OF PATIENTS BEFORE RADICAL PROSTATECTOMY

B. Atanasov, N. Kolev, R. Kotsev V. Dunev, F. Shargabi, P. Genov\* A. Vanov, J. Atanasov, M. Sachdeva

Clinic of Urology,  
UMBAL "G. Stranski", Pleven  
Department of Urology\*,  
MBAL "Ruse", Ruse

### РЕЗЮМЕ

Предоперативното определяне на състояние на еректилната функция на пациентите, подлежащи на двустранна нервосъхраняваща радикална простатектомия придобива все по-важно значение в последните години. Причината за това е, че злокачественото заболяване на простатната жлеза се среща все по-често при по-млади пациенти, които са в полово активна възраст.

### Цел

Целта на настоящото ретроспективно проучване е да се оцени еректилната функция на пациентите с клинично локализиран рак на простатата, на които предстои двустранна нервосъхраняваща радикална ретропубична простатектомия (ДНРРП), използвайки международния индекс за еректилна функция (IIEF). На второ място да установим има ли връзка между IIEF и индивидуалната преценка на кандидатите за ДНРРП, и не на последно място да оценим състоянието на еректилната функция на пациентите с оглед техните придружаващи заболявания.

### Материал и метод

За периода от месец януари 2012 г. до януари 2017 г. в Клиника по Урология към УМБАЛ „Д-р Георги Странски“ - гр. Плевен 88 пациента, подлежащи на двустранно нервосъхраняваща радикална ретропубична простатектомия са съб-

### ABSTRACT

Preoperative assessment of the condition of erectile function of patients undergoing bilateral nerve-sparing radical prostatectomy has become more important in recent years. The reason for this is that malignant prostate disease is more common in younger patients who are sexually active.

### Aim

The aim of this retrospective study is to evaluate the erectile function of patients with clinically localized prostate cancer who are candidate for bilateral nerve-sparing radical retropubic prostatectomy (BNRRP) using the International Index of Erectile Function (IIEF).

Second, to establish the relationship between the IIEF and the individual assessment of the BNRRP applicants, and last but not least to assess the erectile function of the patients in terms of their accompanying illnesses.

### Material and method

For the period from January 2012 to January 2017 in the Clinic of Urology at „Dr. Georgi Stranski“ University Hospital - Pleven, 88 patients, subject to bilateral nerve-sparing radical retropubic prostatectomy, reported that they have a preserved erectile function (EF) and wish it to be stored after surgery. The history of patients' concomitant illnesses and



щили, че имат запазена еректилна функция (ЕФ) и желаят тя да бъде съхранена след операцията. Анамнезата за придружаващите заболявания и сексуалната история на пациентите са снети в деня на хоспитализацията. Субективно съобщената оценка за потентността на пациента е сравнена с международния индекс за еректилна функция.

### Резултати

Според домейна за ЕФ на международния индекс за еректилна функция, изходна нормална ЕФ се установява при 38 пациента. Деветнайсет пациента бяха с леко нарушена ЕФ, 14 пациента имаха лека към средна ЕФ, 8 пациента бяха със средна и 9 с тежка еректилна дисфункция. Резултатите показваха, че голям брой от пациентите с клинично локализиран карцином на простатата, които бяха кандидати за ДНРРП, и предоперативно съобщиха, че са напълно потентни, в действителност още предоперативно са били с нарушена ЕФ. Съществува и изразена корелационна зависимост между придружаващите заболявания и ЕФ.

**Ключови думи:** еректилна функция, еректилна дисфункция, двустранна нервосъхраняваща радикална ретропубична простатектомия

През последните години карциномът на простатната жлеза (КПЖ) заема водещо място в класациите за честота на раковите заболявания сред мъжете, като много от актуалните проучвания му отреждат първа позиция [1]. В Европа всяка година се диагностицират нови 100 000 случая със злокачествени заболявания на простатата, като във връзка с ранния скрининг на простатната жлеза има тенденция към повишаване на този брой [2].

Множество рандомизирани клинични проучвания и мета-анализи през последните години посочват, че хирургичното лечение извършено в ранен стадий на заболяването е свързано с по-добра преживяемост на пациентите в сравнение с консервативното лечение [3] или лъчетерапията [4,5]. Въпреки че хирургичния подход е свързан с отлични дългосрочни онкологични резултати [6,7], рискът от краткосрочни и дългосрочни нежелани събития не е незначителен [8,9]. Постигнатия напредък по отношение на познанията ни за хирургичната анатомия на простатата и подобряването на хирургичната техника, за съжаление не намаляват процента на пациентите с инконтиненция на урината и еректилна дисфункция след радикална простатектомия (РП). Честотата на еректилната

sexual history was taken on the day of hospitalization. The subjectively reported assessment of the patient's potency is compared to the international Index of Erectile Function.

### Results

According to the EF domain of the International Index of Erectile Function, baseline EF was found in 38 patients. Nineteen patients had slightly impaired EF, 14 patients had mild to moderate ED, 8 patients had moderate, and 9 had severe erectile dysfunction. The results showed that a large number of patients with clinically localized prostate cancer who were candidates for BNRRP and preoperatively reported to be fully potent were in fact with disturbed EF. There is also a pronounced correlation between concomitant diseases and EF.

**Key words:** erectile function, erectile dysfunction, bilateral nerve-sparing radical retropubic prostatectomy

дисфункция след РП варира в широки граници между 14% и 90% [10,11]. Това е значим проблем за лекувания лекар и пациента тъй като карциномът на простатната жлеза се диагностицира при все по-млади сексуално активни пациенти, които държат да запазят след операцията същото качество на живот [12,13]. Известно е, че предоперативните характеристики на пациента играят основна роля за последващата вероятност за възстановяване на ЕФ след операция, където по-младите и по-здрави индивиди имат значително по-високи проценти на възстановяване в сравнение с по-възрастните и болните си колеги [14-20].

### ЦЕЛ

Целта на това проучване е да се направи обективна оценка на предоперативната сексуална функция на пациенти с клинично локализиран рак на простатата, които са кандидати за ДНРРП, използвайки международния индекс за еректилна функция. Да се установи дали има корелация от една страна между въпросника и индивидуалната преценка на кандидата, а от друга между придружаващите заболявания на пациентите и



34. П. Генов, Н. Колев, Р. Коцев, В. Дунев, Б. Атанасов, А. Ванов, Ж. Атанасов.  
Преустановяване на лечението с дапоксетин при пациенти с преждевременна  
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## ПРЕУСТАНОВЯВАНЕ НА ЛЕЧЕНИЕТО С ДАПОКСЕТИН ПРИ ПАЦИЕНТИ С ПРЕЖДЕВРЕМЕННА ЕЯКУЛАЦИЯ: 2-ГОДИШНО ПРОСПЕКТИВНО НА- БЛЮДЕНИЕ

П. Генов<sup>2</sup>, Н. Колев, Р. Коцев<sup>1</sup>, В. Дунев<sup>1</sup>, Б. Атанасов<sup>1</sup>, А. Ванов<sup>1</sup>, Ж. Атанасов<sup>1</sup>

Клиника по урология<sup>1</sup>

УМБАЛ "Д-р Георги Странски", Плевен

Отделение по урология<sup>2</sup>

УМБАЛ Русе АД, Русе

## DISCONTINUATION OF DAPOXETINE IN PATIENTS WITH PREMATURE EJACULATION: 2-YEAR PROSPECTIVE STUDY

P. Genov<sup>2</sup>, N. Kolev<sup>1</sup>, R. Kotsev<sup>1</sup>, V. Dunev<sup>1</sup>, B. Atanasov<sup>1</sup>, A. Vanov<sup>1</sup>, J. Atanasov<sup>1</sup>

Clinic of urology<sup>1</sup>

UMHAT "Dr. G. Stranski", Pleven

Department of Urology<sup>2</sup>

UMHAT Ruse AD, Ruse

### РЕЗЮМЕ

#### Цел

Преждевременната еякулация е най - често срещаната сексуална дисфункция при мъжете, въпреки това тя не е добре проучена. Тя се класифицира като "lifelong" (първична) и "acquired" (вторична).

#### Материал и метод

Нейната честота достига до 30% при мъжете от 18 до 59 години в различните държави. Въпреки че Дапоксетин е единственият перорален фармакологичен агент, одобрен за лечение на преждевременна еякулация, който се счита за "златен стандарт" и първо средство на избор с висока ефективност, честотата на прекъсването на лечението с него е много висока.

При 55 пациенти бяха включени в проучването като приемаха при нужда 30 или 60 мг. От всички пациенти само 14.5% продължават лечението си за целия период от 2 години. Кумулативните стойности на процентите на прекъсване на лечението на 3, 6, 12 и 24 месец са съответно 29,1%, 65,4%, 81,8% и 85,5%. Степента на прекъсване на лечението с Дапоксетин е много висока.

#### Изводи

Основните причини за преустановяването са високите разходи и разочарованието, че е било необходимо винаги да се приема лекарството, когато се планира сексуален контакт, което не

### ABSTRACT

#### Aim

Premature ejaculation is the most common sexual dysfunction in men, yet it is not well studied. It is classified as "lifelong" (primary) and "acquired" (secondary).

#### Material and method

Its frequency reaches 30% for men from 18 to 59 years of age in different countries. Although Dapoxetine is the only oral pharmacological agent approved for the treatment of premature ejaculation, which is considered a "gold standard" and a first choice agent with high efficacy, but the incidence of discontinuation of treatment with it is very high. 55 patients were included in the study by taking 30 or 60 mg as needed. Of all patients, only 14.5% continue treatment for the entire 2-year period. The cumulative percent discontinuation rates at 3, 6, 12 and 24 months were 29.1%, 65.4%, 81.8% and 85.5%, respectively. The rate of discontinuation of Dapoxetine treatment is very high.

#### Conclusions

The main reasons for the discontinuation are the high costs and the disappointment that it has always been necessary to take the medicine when planning sexual intercourse that does not allow patients to be spontaneous.

дава възможност на пациентите да бъдат спонтанни.

**Ключови думи:** преждевременна еякулация, Дапоксетин, отказ от лечение

Преждевременната еякулация е най - често срещаната сексуална дисфункция при мъжете, въпреки това тя не е добре проучена. Тя се класифицира като "lifelong" (първична) и "acquired" (вторична). Нейната честота достига до 30% при мъжете от 18 до 59 години в различните държави. Етиологията на преждевременната еякулация е неясна. Като причини за възникването ѝ се посочват тревога (безпокойство), свръхчувствителност на пениса и дисфункция на 5 - ХТ рецепторите. Лечението на преждевременната еякулация е консервативно, но нито един от утвърдените методи не дава добри и трайни резултати. Въпреки че Дапоксетин е единственият перорален фармакологичен агент, одобрен за лечение на преждевременна еякулация, който се счита за "златен стандарт" и първо средство на избор с висока ефективност, честотата на прекъсването на лечението с него е много висока.

### ЦЕЛ

Нашата цел беше да проучим процента на преустановяване на лечението с Дапоксетин при пациентите с преждевременна еякулация и причините за спиране на лечението в реалната практика.

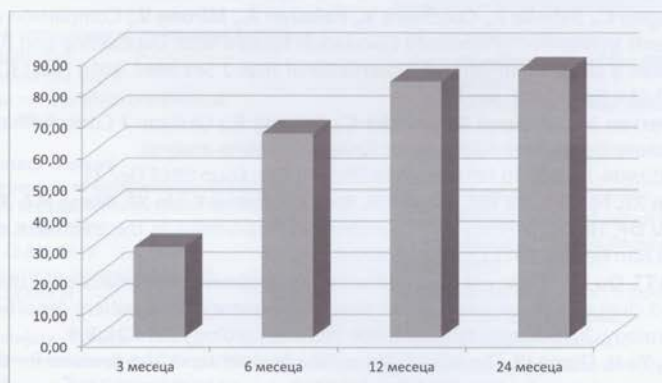
**Key words:** premature ejaculation, dapoxetine, withdrawal from treatment

### МАТЕРИАЛИ И МЕТОДИ

При 55 пациенти бяха включени в проучването като приемаха при нужда 30 или 60 мг. Дапоксетин и бяха проследени за период от две години в урологичната клиника към УМБАЛ «Д-р Георги Странски» - гр. Плевен и отделението по урология към УМБАЛ Русе АД. Средната възраст на пациентите беше 29 (18-46) години. Визитите на пациентите в клиниките бяха на 3, 6, 12 и 24 месец. Бяха оценени процентът на отказ на пациентите от лечение и причините за това.

### РЕЗУЛТАТИ

От всички пациенти само 14.5% продължават лечението си за целия период от 2 години. Кумулативните стойности на процентите на прекъсване на лечението на 3, 6, 12 и 24 месец са съответно 29,1%, 65,4%, 81,8% и 85,5% (Фиг.1). Прави впечатление, че 65,4% от пациентите спират терапията си още на 6-и месец, като над 80% от пациентите спират лечението си още в рамките на първата година.



Фигура 1. Процент на спиране на лечението с Дапоксетин през различните периоди

Причините за преустановяването на лечението, които пациентите посочват са 25,5% висока цена, 36,1% разочарование, че преждевременната еякулация е нелечимо заболяване и че Дапоксетин е необходим всеки път, когато се обмисля сексуален контакт, 14,9% поради нежелани лекарствени реакции, 17,1% заради неудовлетвореност от ефекта на лечението и 6,4% поради търсене на други възможности за лечение (Фиг. 2).



35. Б. Атанасов, Н. Колев, Р. Коцев, В. Дунев, Ф. Шаргаби, П. Генов, А. Ванов, Ж. Атанасов, М. Сачдева. Приложение на скалата за твърдост на ерекцията като диагностичен инструмент за оценка на възстановяването на еректилната функция след робот-асистирана радикална простатектомия. Урология и ендouroлогия 2018. Том 24, бр. 2: 29-34. ISSN: 2535-0560

ОРИГИНАЛНИ СТАТИИ

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## ПРИЛОЖЕНИЕ НА СКАЛАТА ЗА ТВЪРДОСТ НА ЕРЕКЦИЯТА КАТО ДИАГНОСТИЧЕН ИНСТРУМЕНТ ЗА ОЦЕНКА НА ВЪЗСТАНОВЯВАНЕТО НА ЕРЕКТИЛНАТА ФУНКЦИЯ СЛЕД РОБОТ - АСИСТИРАНА РАДИКАЛНА ПРОСТАТЕКТОМИЯ

Б. Атанасов, Н. Колев, Р. Коцев, В. Дунев, Ф. Шаргаби, П. Генов<sup>1</sup>, А. Ванов, Ж. Атанасов, М. Сачдева

Клиника по урология  
Медицински университет, Плевен  
Отделение по урология<sup>1</sup>  
МБАЛ Русе, Русе

## APPLICATION OF ERECTION HARDNESS SCORE AS A DIAGNOSTIC TOOL TO ASSESS ERECTILE FUNCTION RECOVERY AFTER ROBOT - ASSISTED RADICAL PROSTATECTOMY

B. Atanasov, N. Kolev, R. Kotsev V. Dunev, F. Shargabi, P. Genov<sup>1</sup>, A. Vanov, J. Atanasov, M. Sachdeva

Clinic of Urology,  
Medical University, Pleven  
Department of Urology<sup>1</sup>  
UMHAT Ruse, Ruse

### РЕЗЮМЕ

Целта на това изследване е да се определи възстановяването на еректилната функция (ЕФ), проследено във времето след робот-асистирана радикална простатектомия (РАРП), използвайки скалата за твърдост на ерекцията (СТЕ). Това проучване включва 42 пациенти с локализиран рак на простатната жлеза (РПЖ), подложени на РАРП без неoadjuvantна хормонална терапия. Еректилната функция на всеки пациент бе оценявана с международния индекс на еректилната функция - 5 (МИЕФ-5) и СТЕ в изходното състояние и при всяко посещение след извършената РАРП. В тази серия, потентността се дефинира като способност на пациента да има ерекция достатъчна за осъществяване на полов акт, съответстваща на СТЕ  $\geq 3$ , докато пациентите с СТЕ  $\geq 2$  бяха считани само за такива със запазена еректилна функция. От тези 42 пациенти при 15 беше извършена двустранна нервосъхраняваща операция, а при 27 едностранна нервосъхраняваща операция. Пропорционално увеличение на МИЕФ-5 и СТЕ беше забелязано на 12 месец след РАРП. На 3-я, 6-я и 12-я месец след РАРП, процента на възстановява-

### ABSTRACT

The objective of this study was to characterize time-dependent recovery of erectile function following robot-assisted radical prostatectomy (RARP) using the erection hardness score (EHS). This study included 42 patients with localized prostate cancer (PC) undergoing RARP without neoadjuvant hormonal therapy. The erectile function of each patient was assessed based on the international index of erectile function-5 (IIEF-5) and EHS at the baseline and on every visit after RARP. In this series, potency was defined as the ability to have an erection sufficient for intercourse, corresponding to EHS  $\geq 3$ , while patients with EHS  $\geq 2$  were regarded as those with erectile function. Of these 42 patients, 15 and 27 underwent bilateral and unilateral nerve-sparing procedures, respectively. A proportional increase in the IIEF-5 score according to EHS was noted at 12 months after RARP. At 3, 6 and 12 months after RARP, the recovery rates of erectile function were 22.6, 55.3 and 74.8 %, respectively, while those of potency were 11.7, 23.5 and 32.3 %, respectively. The results we obtained show that the EHS could be successfully used instead of IIEF-5 to assess post-operative EF



не на еректилната функция беше 22.6, 55.3 и 74.8%, докато възстановяването на потентността беше съответно 11.7, 23.5 и 32.3%. От няколкото разгледани фактора възрастта, предоперативния резултат от МИЕФ-5 и нервосъхраняващата процедура бяха идентифицирани като основни независими предиктори за възстановяване на ЕФ.

**Ключови думи:** рак на простатата, робот-асистирана радикална простатектомия, еректилна функция, скала за твърдост на ерекцията

През последните години съотношението на пациентите, лекувани с РАРП като първоначална терапия при РПЖ се увеличава, тъй като броят на пациентите, диагностицирани с РПЖ в ранен стадий, значително нараства [1]. Известно е, че с РАРП може да се постигне отличен контрол на рака, с 10-годишна преживяемост > 90% [2]. Въпреки, че през последните години настъпи значим напредък в опознаването на тазовата анатомия и напредването на хирургическите техники [3], РАРП е все още често съпътствана от няколко типа следоперативни нежелани събития, като инконтиненция и нарушение в ЕФ [3, 4]. Това оказва негативно влияние върху постоперативното качество на живота на пациентите, подложени на РАРП [5].

През последното десетилетие въвеждането на РАРП доведе до промяна в парадигмата в областта на хирургичното лечение на пациентите с локализиран РПЖ. Робот-асистираната радикална простатектомия се превърна в доминираща процедура в сравнение с другите хирургически подходи, тъй като роботизираната технология позволява на хирурзите да извършват по-прецизни и точни движения, които подпомагат запазването на основните анатомични структури, свързани с постигане на по-благоприятни функционални резултати [6]. Съществуващите литературни данни също показват сравнително по-добри функционални резултати след РАРП в сравнение с тези след други подходи. В това проучване обхванахме общо 42 пациента с локализиран РПЖ, които бяха подложени на РАРП без неоадювантна хормонална терапия. Те бяха изследвани за зависимости от времето промени във възстановяването на ЕФ след РАРП базирайки се на СТЕ.

## МАТЕРИАЛ И МЕТОДИ

Това проучване обхваща общо 42 пациента с клинично локализиран РПЖ, които са претър-

recovery. Of the several factors examined, the age, preoperative outcome of IIEF-5 and the nerve-sparing procedure were identified as major independent predictors of EF recovery.

**Key words:** prostate cancer, robot-assisted radical prostatectomy, erectile function, erection hardness score

пели РАРП без неоадювантна хормонална терапия между месец май 2014 г. и месец декември 2016 година в УМБАЛ „Д-р Георги Странски“, ЕАД Плевен. В нашата институция РАРП се извършва с помощта на роботизирана система Да Винчи (Intuitive Surgical Inc., Sunnyvale, CA, САЩ) чрез трансперитонеален подход. При нашата техника първоначално изолираме и мобилизираме семенните мехурчета, след което преминаваме към дисекция и лигиране на съдовия плексус, последвано от дисекция на шийката на пикочния мехур и продължаваме по класическия път за отстраняване на простатата. Запазването на съдовонервният сноп обикновено се провеждаше чрез интерфасциална дисекция в аваскуларната равнина между простатната капсула и фасцията на Денонвил. Завършвахме със задна реконструкция на рабдомиосфинктера и везико-уретрална анастомоза по описания от Ван Велтховен метод [7]. Еректилната функция на включените пациенти беше оценявана с помощта на СТП [8, 9], при която пациента отговаря на въпроса: „Как оценявате твърдостта на ерекцията си“ и МИЕФ-5 [10] в изходното състояние и при всяко посещение на пациента на 3-я, 6-я и 12-я месец след РАРП. За потентни се считат тези пациенти, при които има ерекция достатъчна за осъществяване на полов акт, съответстваща на СТЕ  $\geq 3$ , а пациентите с СТЕ  $\geq 2$  бяха считани само за такива със запазена ЕФ. Нивата на възстановяване на ЕФ и потентност се изчисляваха с метода на Kaplan-Meier, а разликите се определяха чрез логаритмичния тест. Ефектите на някои фактори за възстановяване на ЕФ се оценяваха с помощта на модела на Cox за пропорционална хазартна регресия.

## РЕЗУЛТАТИ

Клинико-патологичните характеристики на тези 42 пациенти с клинично локализиран РПЖ, включени в това проучване са обобщени в Таблица 1. В изходно състояние средната стойност на

## ИМПОТЕНТНОСТ ПРЕЗ ВЕКОВЕТЕ

Б. Атанасов, Н. Колев, П. Генов<sup>1</sup>

Клиника по урология

Медицински университет, Плевен

Отделение по урология<sup>1</sup>

МБАЛ Русе, Русе

## IMPOTENCE IN THE AGE

B. Atanasov, N. Kolev, P. Genov<sup>1</sup>

Department of Urology

Medical University, Plevan

Department of Urology<sup>1</sup>

UMHAT Ruse, Ruse

Думата "импотентност" произлиза от латинската дума "impotencia" - липса на сила. Терминът е използван за първи път през 1420 г. от Thomas Hoccleve (1370-1454) в 5500 стиховата му поема «De Regimine Principum» (Правителство на принцове) (Wright T, 1860).

Най-старото описание на импотентността е направено в Индия от Samhita, около осми век пр.н.е., където за пръв път е направен опит да се опишат причините за това състояние (Bhishagratna, K.K., 1963). Индусите смятали, че импотентността има психически произход и се отключва от полови контакти с неприятна жена (Herman JR, 1973)(сн. 1).



Снимка 1. Любовен еликсир

Според древните китайци импотенцията се дължи на нарушен баланс между силите Ин (отрицателна, тъмна и женствена) и Ян (положителна, ярка и мъжка), които са две противоположни, но допълващи се страни на природата (Ebrey, P., 1993). За лечението на импотентността се спомене-

нава и в най-стария китайски текст, достигнал до нас, Huang-Ti Nei-Ching (Вътрешна медицина на жълтия император Хуа-Ти), който е написан между 2697 и 2595 г. пр. Хр. Той съдържа списък с 22 съставки, които самият император е пил, за да има 1200 жени и да постигне безсмъртие (Li CL, 1974).

В древен Египет са смятали, че импотентността е два вида: естествена, при която "човекът е неспособен за извършване на сексуален акт" и свръхестествена, която се причинява от заклинания. Египетският папирус Ebers - медицински документ от 1600 г. пр. Хр. съдържа 811 предписания за различни заболявания, включително за импотентност (Smith, G.E., 1974).

В Гърция Хипократ също отделя значително място на импотентността. Той обсъжда етиоло-



Снимка 2.  
Импотентни евнуси



37. Nikolay Kolev. Comparative analysis of results between robot-assisted vs open radical prostatectomy. Journal of Biomedical and Clinical Research, Vol. 12 No 2, 2019, 157-161 pp. *ISSN* 1313-6917



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Original Articles

## COMPARATIVE ANALYSIS OF RESULTS BETWEEN ROBOT-ASSISTED AND OPEN RADICAL PROSTATECTOMY

Nikolay Kolev

Medical University – Pleven

### Summary

We aimed to compare results between patients with early-stage prostate cancer who underwent robot-assisted and open radical prostatectomy. We examined preoperative and postoperative data, early and late complications, and analysed oncological and functional outcomes (continence and erectile function) during follow-up.

We studied the data of 123 patients with localized prostate cancer, operated with nerve-sparing retropubic radical prostatectomy, divided into two groups. Group 1 included 70 patients who underwent robot-assisted radical prostatectomy (RARP). Group 2 included 53 patients, on whom open retropubic radical prostatectomy (RRP) was performed. We compared preoperative data, complications rate, oncological, and functional outcome (continence and erectile function) during the follow-up period.

Operative time was significantly lower in the RRP group. Blood loss and earlier removal of the urinary catheter were significantly lower in the RARP group. The percentage of significant postoperative complications (Clavien-Dindo III-IV) was 0% in the first group and 3% in the second group. During follow-up, the improvement in the functional outcome - continence and erectile function was significantly better in the robot-assisted surgery patients.

There were statistically significant better functional outcomes in patients operated on using the robot-assisted technique. The operating time was shorter in the classic radical prostatectomy. The application of robot-assisted radical prostatectomy may help achieve earlier recovery, as compared to open radical prostatectomy.

**Key words:** robot-assisted radical prostatectomy, retropubic radical prostatectomy, oncological, functional outcomes.

### Introduction

Prostate cancer (Pca) is one of the most common cancer in men in many countries. In Bulgaria, prostate cancer ranks second, with an incidence of 17% frequency. It is the second most common cause of death in men, accounting for 9.3% of malignant diseases [1]. During the last couple of years, there is an increasing tendency in detecting Pca and diagnosing men with early-stage (T1-T2) prostate cancer (64%). Radical prostatectomy is the most often applied radical treatment for patients with prostate cancer and organ-confined disease. Patients and urologists often face a problem choosing

### Corresponding Author:

Nikolay Kolev  
Georgi Stranski University Hospital  
8A, G. Kochev Str.  
Pleven 5800, Bulgaria  
e-mail: kolevmd@yahoo.com

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38. Боян Атанасов, Николай Колев. Състояние на сексуалната функция след нервосъхраняваща робот-асистирана и ретропубична радикална простатектомия. Урология и ендouroлогия. ISSN: 2535-0560 - под печат

Резюме:

Необходимостта от изследване на състоянието на сексуалната функция след нервосъхраняваща робот-асистирана и ретропубична радикална простатектомия е все по-подчертана, поради факта че в последните години злокачественото заболяване на простатната жлеза се среща все по-често и се диагностицира при по-млади пациенти.

Целта на настоящото проучване е да се направи обективна оценка на сексуална функция на пациенти с клинично локализиран рак на простатата, които са претърпели двустранна нервосъхраняваща робот-асистирана и ретропубична радикална простатектомия, използвайки международния индекс за еректилна функция (МИЕФ).

За периода от февруари 2016 г. до ноември 2018 г. в Клиника по Урология към УМБАЛ "Д-р Георги Странски" - гр. Плевен са били хоспитализирани и оперирани 72 пациента, с диагностициран карцином на простатната жлеза. Резултатите показват изразено преимущество по отношение на съхранение на сексуалната функция при пациентите претърпели роботизирана в сравнение с отворена операция. В краткосрочен план всички сексуални функции са сигнификантно по-добре запазени след робот-асистираната в сравнение с ретропубичната радикална простатектомия, докато в дългосрочен план тази тенденция се запазва предимно по отношение на оргазма и сексуалното желание и в по-малка степен при ЕФ, удовлетвореността от половия акт и сексуалния живот.

39. Боян Атанасов, Николай Колев. Еректилна дисфункция след радикална простатектомия - иновативни методи за лечение. Урология и ендouroлогия. ISSN: 2535-0560 - под печат

Резюме:

През последните години карциномът на простатната жлеза се превърна във втория най-често диагностициран и третият по смъртност рак сред мъжете в развитите страни. Въпреки технологичния напредък и появата на нови методи за лечение, „златен стандарт“ за лечение на това заболяване си остава радикалната простатектомия. В миналото, поради незадълбоченото познаване на анатомията на съдово-нервния сноп, честотата на еректилната дисфункция (ЕД) след радикална операция на простатата е била много висока и се е доближавала до 100%. След въвеждането на нервосъхраняващата радикална простатектомия от Walsh и Donker, настъпва значимо намаление на процента на еректилната и другите сексуални дисфункции и следоперативната инконтиненция. Понастоящем най-широко използваното средство за лечение на ЕД след радикална простатектомия (РП) са инхибиторите на фосфодиестераза-5. Въпреки тяхната безпорна ефективност, тези лекарства не могат да коригират всички промени, настъпили в патофизиологията на пениса след РП. Това налага търсенето на нови лекарства за възстановяване на еректилната функция при тези пациенти.

40. Делийски Т, Димитрова. Раздел урология. Н. Колев Оперативна, обща и специална хирургия, оперативни грижи. Учебник 540 стр., Издателски център МУ Плевен, 2017 г., ISBN-978-954-756-201-1

Настоящият учебник представя съвременните виждания и стратегии в областта на сестринските хирургични грижи и базата на която те стъпват – оперативната, общата и специалната хирургия.

В нашата страна въпросите, свързани със специалистите по здравни грижи са особено динамични, тъй като успоредно със следването на световните и европейски постижения в практичен аспект, на моменти те трябва бързо да се адаптират към новосъздадени промени в администрирането на тяхната дейност в съответствие на европейските стандарти. Във всеки случай обаче пред тях се разкриват нови и нови възможности за професионална реализация като незаменима част на екипите, извършващи медицинските дейности, в това число и най-високо технологичните.

За да се постигне всичко това, става неизбежна необходимостта от задълбочено изучаване на същностната характеристика и съвременните тенденции в отделните медицински дисциплини, една от които е хирургията.

При подбора на материала на учебника авторският екип се е постарал да бъде обхванат в сравнително малък обем голямото тематично многообразие на хирургията и то да бъде представено в максимално сбит изказ, без от това да страда задълбочеността на информацията, от която тези специалисти се нуждаят и заслужават да им бъде предоставена. Никоя от разискваните теми няма претенции за пълна изчерпателност, още повече, че когато хирургията като клинична дисциплина е адресирана до специалистите по здравни грижи е трудно да се намери най-точният баланс между краткото, обширното и изчерпателното повествование.

На фона на тази липса на формални правила за писане на учебник по хирургия за специалисти по здравни грижи, авторският екип е избрал по своя преценка, якои от темите да бъдат по-обширни, а други – в близък до компендиумите формат.

С „предимство“ за по-голяма обширност са темите, които в настоящия момент имат по-голям акцент за специалисти по здравни грижи. Това са оперативната техника и онко-

логията като новоткрити специалности за сестри в нашата страна. Други по-разширени теми са раните с голямата динамичност на стратегиите на третирането им както и новите технологии с бързото си внедряване в практиката, има и въпроси, които поради голямото разнообразие на клинични прояви и терапевтични стратегии е трудно да бъдат побрани в компендиум. Такива са заболяванията на щитовидната и на млечната жлеза. По традиция в учебниците по хирургия за специалисти по здравни грижи присъстват и урологичните и травматологичните въпроси. Представени са и тук.

С „предимство“ за по-конспекторен вид на представянето са темите от по-тесните специалности – съдова хирургия, гръдна хирургия и неврохирургия. Разчита се, че интересувашите се могат да открият актуална информация в специализираната по направленията литература.

Най-трудно беше взето решението, как да бъдат представени грижите за хирургичните пациенти. Възприе се тактиката те да съпътстват отделните хирургични теми. Така се постига по-добро преливане между често трудно отграничимите дейности на лекарите и на медицинските специалисти.

Трудно е на авторския екип да прецени до каква степен учебникът ще бъде от полза на обучаващите се студенти и на желаещите да актуализират познанията си работещи вече кадри. Надяваме се обаче, че прелиствайки страниците, читателите, ще се убедят в нашето голямо уважение към труда на специалистите по здравни грижи. Нека когато откриват различия между своите виждания и написаното тук, не търсят грешилия, а доразвият тезата в полза на усъвършенстването. Не случайно често в книгата се използва изразът „Вариант на подход по този въпрос са следните препоръки: .....“. Така показваме че освен следването на общоприетите съвременни принципи представяме и варианти на виждания на отделни колективи.

Март, 2017

Проф. д-р Т. Делийски, д.м.н., специалист по Обща хирургия и по Онкология

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## ОПЕРАТИВНА, ОБЩА И СПЕЦИАЛНА ХИРУРГИЯ. ХИРУРГИЧНИ ГРИЖИ

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