lower epigastric artery was performed in one stage with a stage of allocation of vessels on a penis. All patients in the postoperative period accepted PDE-5 inhibitor in small doses.
In the postoperative period studied frequency intra-and postoperative complications, duration of stay of the patient in a hospital, rehabilitation terms.
Results: Duration of operation of 84.3 (63–110) min. Intraoperatsiony and early postoperative complications at the studied patients it was not registered, in all cases anastomosis functioned "adequately", for 1 day spontaneous adequate erections at 9 patients, at 6 patients for the 2nd day were noted. Patients were written out on average for the 5th day. Restriction of physical activities, sports activities at patients – 14 days. During observation, at the operated patients, cases of a recurrence of ED were not recorded.
Conclusions: When carrying out revascularization the method offered by us, at patients notes reduction of terms of an operative measure, due to simultaneous work of two teams of surgeons, rehabilitation term without loss of efficiency of intervention, the minimum cosmetic defect decreases. Also due to antegrade imposing of an anastomosis, fibrinferments of an anastomosis it was not recorded.

GUA-06 New approach to preserve male sexual function after nerve-sparing radical prostatectomy

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Introduction and Objectives: Radical prostatectomy (RP) is a standard surgical treatment for localized prostate cancer. RP is followed by some complications, including erectile dysfunction, reduction in penis length (PL) and penile curvature. Recovering sexual function after RP has been extensively studied. Previous studies have demonstrated positive effect of phosphodiesterase type 5 inhibitor (PDE5-Is) on erectile function in men after RP. Several trials have shown the effectiveness of using of penile extender (PE) to maintain the penis length. The aim of our study is to compare the effect of PDE5-Is, PE and combined treatment (PDE5-Is with PE) on erectile function and PL in men after RP.
Materials and Methods: The study included 80 men who underwent RP. The mean age was 64.6 ± 4.7 years. All of them were interested in preserving sexual function postoperatively. The patients were randomized into 4 groups (Gr): 1 – control – 20 men – did not get any therapy; 2–20 men – were treated by PDE5-Is only; 3–20 men – used PE with the vacuum balanus fixation; group 4–20 patients received combined treatment – PDE5-Is with PE. Therapy continued 3 months after surgery. Symptom score assessment with IIEF-5 and PL measurement were performed before and on the 7, 30 and 90 days postoperatively.
Results: PL measurement showed the average penile shortening 0.7 ± 0.1 cm in 7 days, 0.9 ± 0.1 cm in 30 days, and 1.6 ± 0.1 cm (12.5%) in 3 months after surgery in group 1. The mean penile shortening was 0.7 ± 0.1 cm in 7 days, 1.1 ± 0.1 cm in 30 days and 1.2 ± 0.1 cm (10.3%) in 3 months in group 2 ($p < 0.05$). In group 3 penile shortening was 0.8 ± 0.1 cm in 7 days, followed by penile elongation by 0.2 ± 0.1 cm in 30 days and 0.8 ± 0.1 cm (5.7%) in 3 months ($p < 0.05$). In group 4 the mean shortening was 0.7 ± 0.1 cm in 7 days; elongation 0.2 ± 0.1 cm and 0.7 ± 0.1 cm (6%) in 30 and 90 days, respectively. Despite the difference in the mean increase of PL in the groups 3 and 4, statistical significance was not determined. The mean score of IIEF-5 was 16.5 ± 1.3 before surgery, decreased to 9.7 ± 1.4 to 7 day and increased to 10.1 ± 1.5 and 10.3 ± 1.4 to 30 and 90 days, respectively in group 1. In group 2 IIEF-5 was 16.5 ± 1.3 before surgery, decreased to 9.7 ± 1.4 to 7 day and increased to 13.2 ± 1.6 and 13.4 ± 1.2 to 30 and 90 days, respectively. There was no obtained significant difference between group 3 and control group for IIEF-5 score, as well as between groups 2 and 4.
Conclusions: The effect of combine treatment (PDE5-Is with PE) is superior to the effect of both monotherapy PDE5-Is or PE on erectile function and PL after RP. It is reliable tool of sexual rehabilitation after PR.

GUA-07 Intravesical bacteriophages for treating urinary tract infections in patients undergoing transurethral resection of the prostate: a randomized, placebo-controlled, double-blind clinical trial

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Background: Urinary tract infections (UTIs) are among the most prevalent microbial diseases and their financial burden on the society is substantial. Moreover, the continuing increase of antibiotic resistance worldwide is alarming. Thus, well-tolerated, highly effective therapeutic alternatives are urgently needed. We aimed to compare efficacy and safety of intravesical bacteriophages for treating UTIs.
Methods: In this randomized, placebo-controlled, double-blind trial, 97 patients undergoing transurethral resection of the prostate presenting with UTI were assigned to receive intravesical Pyo bacteriophage (n = 28), intravesical placebo solution (n = 32), or oral antibiotic treatment (n = 37). The primary outcome of the trial was clinical and microbiological treatment response. Secondary outcomes included safety parameters, quantitative microbiological urine assessments and improvement or deterioration of UTI symptoms.
Results: Seven days after surgery, the treatment success rates were similar between the three groups. Compared to the Pyo bacteriophage (5/28 (18%)), the placebo group had 9/32 (28%) (Odds Ratio (OR) 1.8, 95% confidence interval (CI) 0.52–6.2; p = 0.352) and the antibiotic group had 13/37 (35%) (OR 2.49, 95% CI 0.77–8.1; p = 0.129) successes. Also, adverse events were similar between the three groups. They were seen in 6/28 patients (21%) in the Pyo bacteriophage but in 13/32 (41%) in the placebo group (OR 0.4, 95% CI 0.13–1.25; p = 0.116) and in 11/37 (30%) in the antibiotic group (OR 0.65, 95% CI 0.21–2.03; p = 0.452).
Interpretation: Management of UTI in patients undergoing transurethral resection of the prostate is similarly successful irrespective of the treatment chosen. Besides antibiotics, bacteriophages and bladder irrigation appear to have specific beneficial effect on UTI control.

GUA-08 375-miRNA expression and neoadjuvant therapy in high risk prostate cancer

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Background: The role of neoadjuvant therapy (NT) in the treatment of prostate cancer (Pca) is not fully understood. Nowadays high risk Pca is a potentially fatal disease requiring an active multimodal approach including the preoperative course of chemohormonal therapy with taxanes.
Methods: The nonrandomized control study was initiated in Petrov Research Oncology Institute from 2014 to 2018, approved by the LEC.46 patients were enrolled in study of 3-weekly docetaxel (75 mg/m^2 for up to 6 cycles) with concomitant degarelix (6 monthly injections) prior to prostatectomy. The primary end point was disease-free survival (DFS). Relapse was defined as increasing prostate-specific antigen (PSA) >0.2 ng/ml.
Results: NT was started in 39 patients and completed in full dose and planned regimen in 34 (87.2%) patients. Hematological toxicity grade 3–4 was revealed in 8 (20.5%) patients, non-hematological toxicity grade 1–2 in 17 (43.6%) cases. Statistically significant reduction of PSA > 50% post NT was observed in all 39 cases: ΔPSA before NT 31.02 ± 30.05 (95CI: 24.49–40.97) ng/ml, ΔPSA after NT 1.02 ± 1.01 (95CI: 0.8–1.39) ng/ml p < 0.0005. The volume of the prostate gland during treatment decreased by 1.5 times: from 49.44 ± 39.1 (95CI: 31.08–50.79) cm^3 to 30.99 ± 21.15 (95CI: 17.06–27.84) cm^3 p = 0.017. Median of disease-free survival amounted to 17.56 ± 11.42 months, overall survival rate 32.4 ± 15.6 months. Spectrophotometry miRNA concentration analysis was ΔC = 4.35 ± 1.065 mkg/mkl in biopsy material, ΔC = 6.28 ± 1.24 mkg/mkl after NT. PCR in Real-Time with SYBR BLUE amplification revealed hyperexpression of 375-miRNA in some cases, corrected disease-free survival demonstrated 30% improvement survival rates in case of hyperespression of 375-miRNA. In addition, 2 cases of lengthening number of amplification cycles detected miRNA in the hypoexpression group and were associated with cases of early relapse.
Conclusion: In this study we did not revealed a complete pathologic response after NT and not leaded to a decline of the intraoperative complication. Early oncological outcomes suggest the effectiveness of the NT. The prospect of study is to build a model using miRNA 375 to predict the response of DFS and form a targeted population for the docetaxel regimen 75 mg/m^2.

GUA-09 Early removal of uretheral catheter after endoscopic extraperitoneal prostatectomy

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Background: Extraperitoneal radical prostatectomy (RP) in patients with prostate cancer is useful when there are no oncological indications to lymph node dissection. However, even minimally invasive approach does not avoid such factors as a urinary catheter that may disturb patients. We assessed the possibility to remove the urinary catheter as early as possible.
Methods: Twenty-eight patients with low (n = 22) and low-intermediate (n = 6) prostate cancer risk (according to NCCN criteria) underwent an extraperitoneal laparoscopic RP from March 2017 to November 2018. All operations were performed by the same surgeon (A. Nosov). The inclusion criteria were the following: localized prostate cancer, prostate specific antigen (PSA) <10 ng/ml, ISUP group 1–2, life expectancy of more than 10 years and preoperative patient's counseling, continence before surgery. During surgery, bladder neck sparing was performed in all cases. Vesicourethral anastomosis was performed by two V-Loc circular sutures. A urinary catheter Foley 20 Fr was inserted into the bladder after anastomosis completion. Anastomosis resistance and completeness were checked at the end of surgery by filling the bladder. Except for cases with macroscopic hematuria, urinary catheters were removed on the 1st postoperative day's morning (<24 hours) with an active followup (daily voiding assessment, pelvic ultrasound and postvoided residual volume assessment) on Day 1. All patients were available for a 3-month follow-up.
Results: The average patient's age was 63 years (52–71 years). The median preoperative PSA level was 7.6 ng/ml. The intraoperative technique was unremarkable. Related to the early catheter removal complications included 1 (3.6%) patient with urinary leakage (resolved by repeated prolonged urinary catheter insertion) and 4 (14.3%) with urinary obstruction – resolved by single catheterization (n = 2), percutaneous suprapubic cystostomy (n = 2). No major complications were noticed during the follow-up. Totally, 22 (78.6%) patients were discharged on the next day after the catheter removal – on the 2nd postoperative day. All discharged patients did not need readmission during the follow-up. Remained 6 (21.4%) patients stayed at the hospital for 5–18 days. All patients had the PSA level of <0.2 ng/ml 30–90 days after surgery. Postoperative assessment showed improvement in urinary function and erectile function sparing in selected patients, with no compromising functional results due to the early catheter removal.
Conclusion: Despite the common widespread of minimally invasive RP, there is no consensus on the terms of a urinary catheter removal. According to our data, we suggested it might be of some benefit to remove a urinary catheter early in selected and well-informed patients. A thorough vesicourethral anastomosis pursuance, nerve-sparing, bladder neck sparing and Retzius sparing procedure, intra- and postoperative assessment is necessary in all cases.

GUA-10 An alternative method for prostate cancer diagnosis

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Background: Despite advances in the diagnosis, a prostate cancer remains as a second cause of cancer death in men worldwide. The drawback of the existent imaging method is that they cannot detect prostate cancer at the early stage of development. Besides, the methods are partially invasive. This circumstance resulted in searching of simple, non-invasive method for the detection of prostate cancer. In our earlier investigations, we have shown that near infrared radiation (NIR) can be used for the visualization of cancer outgrowth in the prostate *in vitro*. On the other hand, recent investigations show that circular polarization light can persist better its polarization property during propagating through turbid media compared with the linear polarization light. Using circularly polarized light improves the quality of image recovery in dense turbid media. It is obvious, that prostate tissue represents turbid media. In present work we show that utilization of circular polarized infrared light enhances cancerous prostate IR images.
Methods: Experiments were carried out on the prostates derived from the radical prostatectomy. Infrared light emitting diodes (LED) (850–920 nm) were utilized for transillumintion of prostates. Polarize filters for circular polarization working in NIR region was utilized for polarization. Circular polarized NIR was captured by a charge coupled device (CCD) camera after passing the prostate. Prostate infrared images were visualized by a computer, coupled with CCD camera. After NIR investigation prostates were investigated with standard histomorphological methods.
Results: Experiments show that the optical density of cancerous and healthy prostate tissues in circularly polarized IR light significantly differs from each other. Polarized IR light enhances transillumination