

N54**Does the number of prostatic epithelial progenitors depend on age?**

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Introduction and Objectives: The CD133 surface antigen is considered to be a marker stem cells and is used to isolate prostatic epithelial stem cells. This subpopulation is probably playing an important role in prostate cancer and BPH, as well. The prostate epithelial CD133 positive cells isolation method and our results are presented.

Material and Methods: Prostate epithelial cells were isolated from the material from 19 adenectomies performed in two centers. Time of transportation was 1 h in 13 cases and 24 h in 6 cases. Tissue was transported in cold medium with antibiotics. Patients operated near lab aged 56 to 80 (68.1±7.9) while patients operated far away from lab aged 71 to 83 (76.5±4.9). Tissue was cut into 1 mm pieces and incubated for 6 h in collagenase type I (1 mg/ml, Sigma). Cells were washed, resuspended and counted. CD133+ cells were isolated using magnetically labelled anti-CD133 antibodies (Miltenyi Biotec). Cells were cultivated in 25 cm² T-flasks in medium designed for prostate epithelial cells.

Results: Total numbers of living cells obtained after specimens enzymatic digestion from both centers were comparable (0.6–6.0×10⁶). The percentage of CD133 positive cells was 4.9±1.6 of total living cells obtained from center near lab (1 h of transportation time). The percentage of CD133 positive cells was 3.6±2.8 of total living cells obtained from center far away from lab (24 h of transportation time).

Conclusions: Tissue transportation time even up to 24 hours did not influence on epithelial cell isolation procedure and total epithelial cell viability. It seems that patient age can influence on stem cell number within prostate epithelium.

N55**An analysis of the main causes and evaluation of the results of a surgical treatment of vesico-vaginal fistulas**

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Introduction and Objectives: Vesicovaginal fistulas are rare but one of the most serious complications after a gynecologic surgery or radiotherapy of pelvic cancers. An important factor in the choice of a treatment method depends on the origin of a fistula and the previously undergone radiotherapy. A growing number of detected neoplasm in the pelvis, more aggressive treatment methods and a wide use of tele- and/or brachytherapy increase a number of patients who need surgery.

Material and Methods: We operated on 85 patients with vv fistulas between 1991–2008. The youngest patient was 21, the oldest 75, mean age 54. In our group 19 patients had fistula repair operations in other hospitals earlier and 56 patients had RT in the past—the received dose within recommended range. Teletherapy alone in 2 cases. Both tele and brachytherapy in 54 cases. 3 patients had reirradiation after few years. 14 patients were reported to have cancer in histopathology specimen—there are confirmed neoplastic fistulas. 120 operations were performed in different techniques. Benign-uterine myoma was a primary disease for 14 patients, inflammatory process in the pelvis for 2, 2 – obstetrics. Neoplasm was diagnosed in 68 cases, endometrial cancer in 3, bladder cancer in 2, uterine sarcoma in 1. The rest of patients – 62 had diagnosed uterine cervix cancer. Postoperative iatrogenic fistulas were diagnosed

in 31 cases. 1 after urologic procedure, 1 after cesarean section, 28 after gynecologic operations.

Results: Type of performed operations: suture from vaginal approach was done 12 times, recurrence in 6 cases, closure by transabdominal, transvesical approach 36, recurrence in 9, we used tissue glue in, 2 recurrence in 1, cystojejunoplasty was done in 21, recurrence in 14, urinary diversion in (5 continent reservoir) 43, laparoscopic suture in 5, recurrence 4, definitive nephrostomy (single kidney) in 1. Some patients had to have more than 1 operation due to a recurrence of fistula: 1 patient (RT+) was operated 7 times and the fistula was closed without urinary diversion. The survival status for all patients is monitored.

Conclusions: The best results of surgery we obtained in the group of postoperative fistulas. Patient with neoplastic fistulas can receive much better quality of life with urinary diversion, even when expected life time is short. Patients with cancer treated by radiotherapy of the pelvis in the past had worse prognosis for the good results of fistula repair operations so radiotherapy in the past is an important factor while selecting the type of surgery. Temporary urinary diversion can be performed for relatively young patients. The laparoscopy is not best solution for fistula repair surgery. Selection of patient should be very precise to every method to avoid unnecessary operations.

N56**Is botulinum toxin type A intraprostatic injections effective in patients with urinary retention?**

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Introduction and Objectives: There are reports on prostate cells apoptosis following Botulinum toxin type A injections and 30% prostate volume reduction. Stoma compartment dominates in human prostate. Study was divided into clinical and in vitro part. Its aim was to investigate why intraprostatic botulinum toxin had no significant influence on prostate volume in patients suffering from urinary retention (UR).

Material and Methods: In the clinical part, 5 patients aged from 75 to 88, suffering from BPH and UR were treated. Patients were previously disqualified from surgery and had not passed trials without catheters (TWOC). Prostate volume ranged from 38 to 104 ml. Botulinum toxin injection were performed under sonographic guidance (ProFocus, B&K, Denmark). Each lobe of adenoma was injected with 100 U Botox (Allergan, US) dissolved in 4 ml saline. Prostate volume and TWOC were performed after 6 months. In the in vitro part, 3T3 mouse fibroblasts and fibroblasts isolated from human prostate (material from adenectomy) were cultured in presence of Botox (10, 5 and 1 U/ml) for 24 and 72 h. Cells were detached and counted in Neubauer chamber using trypan blue assay. Cells cultured in medium without botulinum toxin were the control group. Results were presented as means with standard deviations, $p < 0.05$ was considered statistically significant.

Results: No early complications were observed. Prostate volume remained unchanged after six months and patients were unable to void. Number of 3T3 cells after 24 h incubation was 7.12±1.88, 7.12±0.64, 6.75±1.28 and 6.88±0.83×10⁴, after 72 h 24.00±3.46, 22.75±3.73, 23.12±3.46 and 23.88±2.42×10⁴, for 0, 1, 5 and 10 U/ml botulinum toxin type A concentrations respectively. Similarly, number of prostate fibroblasts was 7.50±1.20, 7.12±1.73, 6.50±1.93, and 6.25±1.58×10⁴ after 24 h and 9.62±2.00, 9.12±1.55, 9.12±1.73 and 9.75±2.82×10⁴ after 72 h.

Conclusions: Botox caused no improvement in UR nor prostate volume reduction and had no statistically significant, dose-