

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

L. Pokrywka^{1*}, M. Jasinski¹, A. Kaznica¹, P. Chlosta², T. Drewa¹, Z. Wolski¹. ¹Nicolaus Copernicus University, Dept. of Urology, Bydgoszcz, Poland; ²Oncology Center, Dept. of Urology, Kielce, Poland

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**

T. Gawlik-Jakubczak^{1*}, A. Klejnotowska², K. Krajka². ¹Navy Hospital, Dept. of Urology, Gdynia, Poland; ²Medical University, Dept. of Urology, Gdansk, Poland

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?**

M. Jasinski^{1*}, T. Drewa², J. Tyloch², Z. Wolski². ¹Oncology Center, Dept. of Urology, Bydgoszcz, Poland; ²Nicolaus Copernicus University, Dept. of Urology, Bydgoszcz, Poland

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-

dependent effect on neither 3T3 nor prostate fibroblasts proliferation.

N57

Three-dimensional ultrasonography (3D USG) administration in evaluation antibiotic distribution given intraprostatic injection during chronic prostatitis

J. Tyloch*, Z. Wolski, T. Drewa. *Nicolaus Copernicus University, Dept. of Urology, Bydgoszcz, Poland*

Introduction and Objectives: In chronic exacerbated prostatitis, particularly patients with acute and severe pain, the administration of injectable intraprostatic antibiotic is one of the managed ways. An equally drug distribution within the whole prostate especially central zone is a therapeutic successful condition to obtain durable effects. The aim of this study is the evaluation of 3D USG usefulness in controlling uniformly located antibiotic within the prostate cells.

Material and Methods: Since the period of 01.01.2006 to 30.06.2009. Intraprostatic antibiotic injection was administered in 15 patients. Indication for such a treatment was persistent pain unrelieved after orally drugs administration during chronic exacerbated prostatitis. 17 injections performed – one single injection in 14 patients and 3 injections in one patient in 2 and 3 months interval. Age ranged from 26 to 65 years. Average 50.2. Gentamicin (9 times), tazocin (4 times), augmentin (twice), ciprofloxacin (twice) were administered intraprostatic according to bacteriogram results obtained from seminal cultures. All these injections were performed under transrectal ultrasound control (TRUS). Prostate images acquisition in cross-section (transversal) were achieved after classic TRUS execution. Prostate configuration place and localization has been analyzed and scheduled for injection after 3D USG performance. USG transducer was used to observe prostate in transversal and vertical cross-section. Injectable drugs were given to each lobe in a precise regular and symmetrical manner. 3D USG images were achieved after each injection with attention paid to drug distribution at both lobes.

Results: 3D USG obtainment allows an accurate evaluation for injectable drugs localization and distribution in the prostate gland. The success of such proposal way of treatment was due to the effect of equally drug disposition. Pain complaints had relieved after single injection in 14 out of 15 patients. One patient needed 3 injections to gain well therapeutic effect.

Conclusions: 3D USG could be a valuable supplement for classic USG examination to precisely evaluate drug distribution and localization after intraprostatic injection. Besides, it could be a method that permits much more an exact drug disposition which in turn raises therapeutic success.

N58

Difficulties of qualification in patients to implant an artificial urethral sphincter

Z. Wolski, M. Gruszczyński*, M. Tworkiewicz. *Nicolaus Copernicus University, Dept. of Urology, Bydgoszcz, Poland*

Introduction and Objectives: In men urinary incontinence appears after operation on prostate and it is serious disability. Implantation an artificial urethral sphincter AMS 800 is chosen method of therapy in this patients. Indication for this procedure is total urinary incontinence, which is untreated other methods. The success of treatment with AMS 800 is determined by appropriate qualification of this patients, which depend on: assessment of manual and mental efficiency as well as exclusion of: bladder neck stenosis and/or urethral stricture, current local infection, neurogenic bladder and appropriate component selection of artificial urethral sphincter during operation. The aim of the study is show difficulties in the qualification to implanting the artificial urethral sphincter AMS 800, because of

the coexistence of additional diseases which are permanent or temporary contraindications.

Material and Methods: In the Department of Urology Collegium Medicum N.C. University in Bydgoszcz, in the period from 2004 to June 2009 48 patients with urinary incontinence (age 48–80) were hospitalized. They were qualified to implant AMS 800. The symptoms of urinary incontinence occurred after the first operation: total prostatectomy (24), TUR-P (17), adenomectomy (5) and internal urethrotomy after teloradiotherapy of prostate cancer (1). In all cases performed following procedures before the operation: voiding urethrocytography, urodynamic examination, urine culture. In some of them the examination was extended of: ureterocystoscopy and psychological testing. On the our research 2 patients were without urinary incontinence, 21 patients were direct qualified to implant AMS 800, however 25 patients required additional treatment and re-qualification. Urethral stricture was demonstrated in 19 from 48 cases, variations in psychological testing were in 4 from 15 cases, however neurogenic bladder in 5 from 48 cases was the reason of primary disqualification.

Results: 30 patients from 48 were qualified to implant AMS 800. Artificial urethral sphincter was implanted to 29 of them and one is still waiting to do it. 9 from 25 cases changed for the better after surgical/drug treatment and they were also qualified to implant AMS 800. 18 patients were disqualified. Treatment of recurrence urethral stricture was successful in 7 patients from 18. One of 5 patients got better and was qualified to implant AMS 800 after antimuscarine drug treatment and the injection in the bladder wall of botulinum toxin typ A. 2 of 4 patients with psychological disorders got better after drug treatment and they were qualified to implant AMS 800.

Conclusions: Recurrence posterior urethral stricture is the most common cause of permanent disqualification for implanting the artificial urethral sphincter. Relative contraindications, which can be treated pharmacologically are as follows: neurogenic bladder, urinary tract infection, transient depressive state.

N59

Improvement of nocturnal enuresis after adenotonsillectomy in children with obstructive sleep apnea syndrome

A. Gökçe¹*, S. Aslan², F.R. Yalçınkaya¹, M. Davarcı¹, Y.S. Kaya¹, N. Savas³, S. Gorur¹, S. Daglı², A.N. Kiper¹, M.D. Balbay¹.

¹Mustafa Kemal University Tayfur Ata Sökmen Medical School, Dept. of Urology, Hatay, Turkey; ²Mustafa Kemal University Tayfur Ata Sökmen Medical School, Dept. of Otorhinolaryngology, Hatay, Turkey; ³Mustafa Kemal University Tayfur Ata Sökmen Medical School, Dept. of Public Health, Hatay, Turkey

Introduction and Objectives: To investigate the prevalence of nocturnal enuresis (NE) in children who diagnosed with obstructive sleep apnea syndrome (OSAS) and the rate of resolution or improvement in NE following adenotonsillectomy.

Material and Methods: Retrospective chart review of 541 patients who underwent adenotonsillectomy for OSAS secondary to adenotonsillar hyperplasia between January 2005 and January 2009 was performed. 398 patients between the ages of 5 and 18 years at the time of surgery were included into the study. After chart review, families were contacted by phone call. The parents of each child was asked about preoperative presence or absence of NE and postoperative symptoms, including the presence or absence of snoring, witnessed apnea, restless sleep, drooling, and mouthbreathing. Only patients diagnosed with primary enuresis were included in this study. The following questions were asked to the parents of the patients who had preoperative symptoms of enuresis: 1. How frequently did your child wet the bed before surgery?