

**S9****Radical cystectomy – analyses of postoperative complications**

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**Introduction and Objectives:** Radical cystectomy is standard therapy for muscle invasive bladder cancer. This kind of surgery can lead to numerous postoperative complications and prolonged hospitalization. Analyses of postoperative complications as well as classification according to Zurich method.

**Material and Methods:** The research included 82 patients who had been operated at the Urology Clinic. Zurich (Clavien) method has been used for classification of surgical complication, which implicates: GRADE I: any kind of normal postoperative course deviation, without need for pharmacologic therapy, and surgical, endoscopic or radiology intervention (therapeutic measures include prescribing: antiemetics, antipyretics, analgetics, diuretics and electrolytes). GRADE II: pharmacologic therapy which has not been mentioned in grade I (includes blood transfusion and complete parenteral nutrition). GRADE III: surgical, endoscopic or radiology intervention, a) without general anesthesia, b) in general anesthesia. GRADE IV: life endangering complications, a) single-organ dysfunction (including dialysis) b) multi-organ dysfunction. GRADE V: exitus letalis. This classification is based on complication grading according to prescribed therapy.

**Results:** Postoperative complications were reported with 15 patient (which is 18.29%). In total 23.15% continent bladders have been performed. Five patients had dehiscence of the operative wound, wound infection happened to 3 patients, prolonged lymphoreia to 2 of them, dehiscence T-T anastomosis of ileum to one, sigmoid colon-vaginal fistula occurred to one female patient, fistula between ileum and an isolated part of the intestine for urine derivation occurred to one patient, and exitus letalis occurred to two patients. In the group of patients who suffered from complications (n=15), incidence according to Zurich classification is: grade I 33.33%; grade IIIb 53.33; grade V 13.33%. Since Grade II complication implicate prescribing blood, transfusion usage was observed in each patient, derivation type, and sex. Results were recorded as: 2.19 blood units (n=82) was used per patient; in total 62.13% male and 37.87% female patient. The average blood units number for continent derivations was 3.81 units and 3.5 units per patient with incontinent derivations.

**Conclusions:** Operative technique improvement has reduced frequency of postoperative complications, number of needed transfusions, as well as length of postoperative course. Blood usage is enhanced in the cases of continent urine derivations, which can be explained by more demanding and longer operative procedure.

**S10****Smaller vs. standard ileal orthotopic neobladder after cystectomy**

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**Introduction and Objectives:** The principles of continent urinary diversion are based on forming a reservoir of satisfying capacity, low pressure with as less as possible surface area, to reduce the risk of metabolic disorders and to obtain a favorable 24 hour voiding frequency, good capacity and small post-voiding urine residual (PVR). The standard techniques most often propose creating a pouch made of 40–60 cm of the

terminal ileum. In time, there is an enlargement of the pouch capacity and PVR which results in numerous complications.

**Material and Methods:** Prospective and partially retrospective clinical study was designed to compare the pouch volume, the post voided residual (PVR) volume, continence, voiding frequency, maximal flow rate, acidosis and vitamin B12 deficiency 15.8 months following the operation between two groups: group I – 47 pts with a standard dimensioned pouch made of 50–70 cm of terminal ileum, and group II – 44 pts with a small pouch made using 25–35 cm of the terminal ileum. Patients were given questionnaires about voiding frequency, subjective feeling and satisfaction with continence with scale: 1 – full incontinence, 2 – unsatisfactory continence with two or more changing of pads or underwear during 24h, 3 – satisfactory continence with one changing of pad or underwear because of continence and 4 – full continence. T-test, U test and Kolmogorov-Smirnov test were used for data analysis.

**Results:** The evaluation was performed after 15.8 (14–16) months following the operation. The average age of the patients was 66.2 years. 87.91% patients were male and 12.09% were female. We used 30.78±3.77 cm of terminal ileum for creating a smaller pouch average capacity of 467 (300–710) ml with PVR 36.5 (0–147) ml, compared with 58.17±6.87 cm of terminal ileum for creating a standard dimension pouch average 832 (480–2050) ml with PVR 72.0 (0–570) (P<0.001). 93.18% of patients with small pouch have achieved full day continence, while in the group with larger pouch 93.62% of the patients were continent during the day. Night continence was noticed at 84.09% of the patients with smaller pouch and 85.11% of the patients with larger pouch (P>0.05). 24 hr voiding frequency in the group with smaller pouch was 6.5 vs.6.0 in the group with standard dimensioned pouch (P>0.05). We found higher maximal flow rate in group with smaller pouch: 20.3 ml/s vs. 11.7 ml/s. We registered acidosis in 25.00% pts with smaller pouch vs. 44.68% pts with larger pouch (P>0.05). Neither one patient in both group had vitamin B12 deficiency.

**Conclusions:** We found that 15.8 months following the surgery, smaller pouch achieved excellent capacity, satisfying continence, smaller PVR, equal 24h voiding frequency and higher flow rate than larger pouch.

**S11****Urodynamic features of Hautmann orthotopic ileal neobladder using standard and ambulatory urodynamics. Preliminary results**

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**Results:** 5 patients were continent both day and night, while 5 patients who were continent at SUD proved to be incontinent with AUD. The average leak episodes were 6 during an ambulatory recording of 18 hours. Mean nighttime voidings was 2 for each patient. Neobladder compliance was normal in 11 patients (>39 ml/cmH<sub>2</sub>O) while in the remaining three it was <13 ml/cmH<sub>2</sub>O. These patients were found incontinent with both urodynamic methods. PVR ranged from 0 to 323 ml regardless of initial bladder filling. High flow rate patients emptied their bladder without residual volume. High post voiding residual volume was found in three patients with urethral strictures. Maximum flow in AUD recording were 1.5fold higher than those accomplished with the SUD (6 ml/sec and 9 ml/sec respectively). Mean cystometric capacity was 520 ml, average and maximal pouch pressure were 31 and 44.5 cmH<sub>2</sub>O respectively, maximal bladder capacity 1100 ml, minimal bladder capacity 111 ml

(standard urodynamics). Mean pouch pressure during AUD was approximately 2 fold lower than SUD.

## S12

### Continental derivation of urine in children using the method of Mitrofanoff

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**Introduction and Objectives:** Specifying the operational methods and reporting the results of continental derivation of urine in children using the method of Mitrofanoff when appropriate indications exist.

**Material and Methods:** During a period of five years, six continental derivations of urine using the method of Mitrofanoff were executed in the Pediatric clinic of urology at UMHATEM "N.I. Pirogov". We performed appendicovesicostomy in four of them, where three reimplantations were done using the method of Politano-Laedbetter and one using the Le Duc's method. Due to the lack of appendix in two cases the continental derivation was performed using Monti modification.

**Results:** In four of the cases very easy self-catheterisation and good continens were achieved without any reported complications. In two of the cases, due to the leakage of urine from the bladder neck, a secondary execution was necessary.

**Conclusions:** We would like to recommend this method for continental derivation of urine when indications exist because of its relatively easy performance and good results obtained.

## S13

### Postirradiation vesicovaginal fistulas

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**Introduction and Objectives:** Post irradiation vesicovaginal fistulas (piVVF), with histological changes including fibrosing of exposed tissues and vasculitis (telangiectasies). Reconstructive surgery on devitalizing tissue is very complex. Extend of surgical reconstruction depends on changes of piVVF and its localization.

**Material and Methods:** In five years period (since 1999–2005) we treated surgically 39 pts with piVVF. Mean age are 47 years (36–68 years) Preoperative diagnosis including anamnesis, cystoscopically findings, intravenous urography, retrograde uereteropyelography, CT urography etc. Small trigonally and subtrigonally fistulas we treated conservatively with urethral catheter. Large, extensive retrotrigonal fistulas we treated immediately with transabdominal approach (TAA), because we have good exposure of anatomical structure involved in pathological postirradiation changes. TAA is good for reconstruction like ureteric reimplantation, omental interposition with omental wrap. In the situation with excessive fibrotic changes on surround tissues we have possibilities for pelvis exenteration and one of the methods of supravesical derivations.

**Results:** Fistulas excision with omenatal interposition in 25 pts (65%). Bilateral ureterocystostomy in 6 pts (15%) Ureterocutaneostomy in 2 pts (5%). Cystectomy with Brucker derivation, like method of choice in 4 pts (10%). Uretrosigmoidostomy in 1 pts (2%). Dysuric symptoms persist postoperatively in 60% of pts. (postirradiation cystitis), conservative treatments. Postoperative recidivs in 5% (pts with simple excisions).

**Conclusions:** Transabdominal approach with wide opening of bladder, good exposure of surround anatomical structure involved in piVVF, possibilities for reconstructive surgery made this approach superiorly than transvaginally approach (smaller

operating field and limited possibility for reconstructive surgery).

## S14

### Operative treatment of the bladder exstrophy by the method of Arap in childhood age

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**Introduction and Objectives:** We used the operation of Arap as a method of choice for treating the bladder exstrophy in childhood age.

**Material and Methods:** For a period of 6 years in the Clinic of pediatric urology we operated 10 children (6 girls and 4 boys) at an average age of 1 year by the method of Arap. We accepted as our modification the combination of 1<sup>st</sup> and 2<sup>nd</sup> act of the operation in one in all children. In one of the cases we used reconstruction of the sigma-conduit as we detubularised the sigma. In the 4<sup>th</sup> act of the method (forming the neourethra) in one of the children we used bucal mucosa for the plastic reconstruction of the urethra.

**Results:** We follow up the early and late results in children operated by this method. As a most common complication we observed stricture of the neourethra. The final results in terms with the capacity of the neovesica, continens and spontaneous miction are satisfactory. Postoperatively we did not observe vesicoureteral reflux and urosthesis in the upper urinary tract.

**Conclusions:** In conclusion we recommend the use of the operation of Arap as a method of choice in the delayed (1 year of age) operative treatment of the bladder exstrophy.

## S15

### Percutaneous nephrostomy: a tool for treatment of obstruction and a source of infection. An interdisciplinary approach

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**Introduction and Objectives:** The basic aim of this study was to analyze the results from the percutaneous nephrostomies (PNS) inserted in our clinic and to assess their role in treating urinary tract obstruction and acute infection.

**Material and Methods:** We performed a retrospective chart review of 119 patients (65 males and 54 females, mean age 59 years) treated by percutaneous nephrostomy (PNS) for upper urinary tract obstruction in our Urology department for a period of 2 years. A total number of 147 PNS were inserted: 45% in the right kidney, 31% in the left one and bilateral in 24% of the cases. Pelvic malignancies caused the obstruction in 57% of the patients. We analyzed the indications for PNS, the surgical technique, the laboratory findings upon admission, and the effectiveness of the percutaneous drainage. A parallel analysis of 226 patients (95 males and 131 females, mean age 57 years) treated in the Nephrology unit for pyelonephritis over the same period was also done. Patients were divided according to complicated or non complicated urinary tract infections (UTI). Bacterial strains, laboratory findings and causes for complicated UTI were analyzed.

**Results:** Successful renal drainage was obtained in 100% of the cases. In 92% the nephrostomic tube was inserted only under ultrasound guidance. Only 12% of the patients required perioperative dialysis, while in the rest the kidney function was restored after the insertion of PNS. Pyonephrosis was found in 22% of the cases – in all these patients the procedure helped in healing the infection. The comparative analysis of the nephrological patients with UTI showed that PNS could effectively treat obstruction and acute UTI, but it could also be