

and MACP values ( $232.2 \pm 53.8$  vs.  $194.06 \pm 74.47$   $p=0.0054$ ) and 80% of the patients remained continent. Radical prostatectomy patients were no changes in the state of anal continence, no significant difference was observed in the parameters of the anal sphincter regarding either the RASP ( $84.7 \pm 26.5$  vs.  $83.5 \pm 26.7$  mmHg) or the MACP ( $311 \pm 100$  vs.  $294 \pm 86$  mmHg) results. Comparing the preoperative results between the two types of operations there were no significant difference in RASP ( $86.33 \pm 18.75$  vs.  $84.7 \pm 26$  mmHg) and in the MACP ( $232.2 \pm 53.8$  vs.  $311 \pm 100$  mmHg). Referring to the postoperative reports, however, the RASP values in the case of Mainz pouch type II the distraction of urine was detected to be lower, the difference was not significant ( $76.13 \pm 13.86$  vs.  $83.5 \pm 27$  mmHg). The values of MACP ( $194.06 \pm 74.47$  vs.  $294 \pm 86$  mmHg) were nevertheless significantly better in the case of patients who underwent radical prostatectomy.

**Conclusions:** Both the rest anal sphincter pressure and the maximal contraction pressure values decrease significantly after the Mainz pouch type II distraction of urine. Radical prostatectomy has no influence on the functions of anal sphincter. Comparing the two types of surgeries, we detected the significant decrease of the contractility of perineal muscle

### C128

#### Managing the retroperitoneal tumors – 20 years single center experience

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**Introduction and Objectives:** The aim of this study was to present our experience in managing retroperitoneal tumors knowing that these special tumors represent a big challenge for many surgeons.

**Material and Methods:** Between January 1989 and January 2009 in our department were accepted 152 patients with retroperitoneal tumors, others than kidney or adrenal gland. 101 males and 51 female were diagnosed with primary or secondary retroperitoneal tumors. Clinical findings were represented by lumbar pain, tumor, digestive symptoms, fever, reno-vascular hypertension, and signs of compression (vena cava, vena porta). Imagistic evaluation was represented by abdominal ultrasound, IVP with major signs of urinary tract obstruction. CT and MRI represented the gold standard examinations. Imagistic protocol was completed with pulmonary radiography, renal and bone scintigraphy, Doppler ultrasound for vessels and digestive endoscopy. CT or ultrasound guided biopsy was not a routine in our department.

**Results:** Surgery was performed in 144 cases. The transperitoneal approach was considered in 96% of cases. Different operations were performed according to the extension and the stage of the tumor as follows: tumorectomy combined with nephrectomy and adrenalectomy, simple radical tumorectomy, vena cava resection, haematoma drainage, surgical cure of cyst, tumorectomy and bowel resection, duodenum resection, tumorectomy and caudal pancreatectomy, laparotomy and biopsy. The pathological study of retroperitoneal tumors was dominated by different sarcomatous types in 83 cases. Other patients presented various types of histological findings: neuroblastoma, benign soft tissue tumors, benign cysts, old haematoma, lymphoma and some of them secondary, metastatic retroperitoneal tumors.

**Conclusions:** Retroperitoneal tumors were detected frequently in advanced stages, due to non-specific clinical signs and to their deep position. Pain, tumor and compression represented the main clinical findings. CT and MRI were a must for the evaluation of these tumors. Trans-peritoneal approach

was preferred and different conditions such were invasion of neighborhood structures, extension and lymph node dissection were solved using this way. Because retroperitoneal tumors were in many cases sarcomas, which are well-known chemo- and radio-resistant, surgery represented the main curative treatment.

### C129

#### The androgen status of the appendix testis determines the effect of hormonal treatment in cryptorchidism

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**Introduction and Objectives:** Efficacy of hormonal treatment in cryptorchidism is still debated. While some authors have found that human chorionic gonadotropin and luteinising-hormone-releasing hormone are very useful in causing the descent of retractile testis, randomized double blind trials have shown poor outcome of hormonal treatment in 1–5 years old boys with undescended testis. To investigate the causes of this contraversion, we aimed to compare the androgen receptor status of the appendix testis in congenital undescended and retractile testis.

**Material and Methods:** Total 21 appendix testis were removed from 18 boys, who underwent orchiopexy. Group U (n=9) including 3 patients with bilateral and 3 patients with unilateral congenital undescended testis and Group R (n=12) including 12 boys with acquired undescended testis, who were previously followed up because of retractile testis. Immunohistochemistry was carried out with BioGenex monoclonal anti-human receptor antigen (Clone: F39.4.1) and after incubation of the primary antibody, sections were stained with the fluorescein isothiocyanate conjugated goat anti-mouse secondary antibody. Sections were counterstained with 4,6-diamino-2-phenylindole (DAPI). Light microscopy (immunohistochemistry) and confocal laser microscopy (immunofluorescence staining) were used to visualisation of sections.

**Results:** Androgen receptor expression was found both immunohistochemistry and immunofluorescence staining in the epithelial layer of appendix testis 100% in Group R (12/12), but there was no visible androgen receptor expression in Group C (0/9).

**Conclusions:** The presence of androgen receptor in the epithelial cells of appendix testis in patients with retractile testis and absence in patients with congenital undescended testis can be a possible cause of the effectiveness of hormonal treatment in retractile testis and uneffectiveness in patients with congenital undescended testis.

### C130

#### Two stage hypospadias cripples buccal mucosa graft repair

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**Introduction and Objectives:** Complications after failed hypospadias surgery could be severe including anterior urethral strictures with obstruction in urine and semen elimination, urethral fistula, urethral lithiasis, urethritis, recurrent UTI, the treatment of these cases being extremely difficult. The urethral reconstruction requires complete excision of the scarred local tissues and use of extragenital tissues for repair.

**Material and Methods:** Between January 2003 and January 2009 we have performed 54 urethroplasties for hypospadias cripple. In 22 cases the urethral plate and local tissues were scarred, poor vascularized, infected or with hair growth and lithiasis requiring complete excision and two stage urethroplasty. All the cases had between 4–12 failed operations (scrotal and prepuce flaps or Snodgrass operation). We used buccal mucosa harvested from the cheek for the first stage. After a minimum 6 months interval we performed the second stage – graft tubularization. Ventral or dorsal dartos flaps were mobilized for waterproofing the suture line.

**Results:** The first stage complications were graft shrinkage or graft necrosis requiring partial re-grafting in 4 cases (18.2%). The second stage complications were skin necrosis with fistula and glans dehiscence in 6 cases (27.3%). The solving of these cases required another one, two, three or more operations. Final results after complication management were good from functional point of view, all patients voiding easily without postvoiding residual urine. The cosmetic results were good in 18 cases and satisfactory in 4 cases.

**Conclusions:** Despite of a high rate of complications (~45%), in our experience the staged approach represents a salvage surgery with good functional and cosmetic outcome in the treatment of severe forms of hypospadias cripples. For the best results the patients must be referred to the centers experienced in urethral reconstructive surgery.

### C131

#### **Surgical treatment of varicocele in children with open suprainguinal microscopic lymphatic sparing varicolectomy**

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**Introduction and Objectives:** Treatment of varicocele in children is frequently debated. Several techniques have been proposed to solve this problem. The aim of this study was to evaluate the effectiveness of open suprainguinal microchirurgical lymphatic sparing varicolectomy in the treatment of varicocele in children and adolescents.

**Material and Methods:** Total of 255 patients between the ages 11 to 18 years, who suffered from left-sided varicocele grade II–III, were treated with the open suprainguinal microscopic lymphatic sparing varicolectomy. We reviewed the results of open suprainguinal microscopic lymphatic sparing varicolectomy in children and adolescents performed in our department from January 2000 to December 2008.

**Results:** The rate of hydrocele was 1.96%. The rate of recurrence was 7.84%. No other complications (testicular atrophy, wound infection) were observed in this group. All patients with varicocele recurrence were scheduled for antegrade phlebography. Persistent shunting veins (missed during former surgery) were identified in 12 patients. These patients underwent repeated surgery with 100% success rate. A diagnosis of “distal nutcracker phenomenon” as a cause of varicocele was made in remaining 8 patients.

**Conclusions:** Open suprainguinal microchirurgical lymphatic sparing varicolectomy is a safe, minimally invasive technique with low incidence of complications. We recommend this technique as a treatment of choice.

### C132

#### **Experience in cryptorchidism and retractile testicles surgery at the Department of Urology of University hospital Osijek: a ten-year review**

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**Introduction and Objectives:** Cryptorchidism is the most common congenital anomaly of male genitalia, with incidence of about 3.4% full-term babies and 30 % of premature babies. Retractable testicles is a related condition where the testes can be at times found within the scrotum and at times not. The primary management of cryptorchidism and retractile testicles is surgery and its purpose is not only to produce a good cosmetic appearance or positive psychological effect, but to reduce the risk of infertility. It is usually performed in infancy, if inguinal testes have not descended after 4–6 months. Hormonal therapy is sometimes attempted and occasionally successful. The aim of this retrospective study was to present our results of cryptorchidism and retractile testicles surgery, with emphasis on operative technique, age of the patient at the time of surgery, anatomic position of cryptorchid testes, were the testes palpable upon physical examination and presence of associated anomalies and conditions

**Material and Methods:** In a ten-year span (1999–2009) a total of 490 patients were operated upon for maldescent of testes. Median patient age at first orchyopexy was 7.5 years (range 13 months to 44 years). Maldescent had been unilateral in 401 patients (217 on the right side, 174 on the left), bilateral in 79, retractile testicles were found in 82, nonpalpable in 73, canalicular in 376, beyond the external ring in 21 and atrophic or absent in 20 patients. Of associated anomalies and conditions most common were cardiovascular anomalies (5), neurological anomalies (4), hypospadias (3), ipsilateral inguinal hernias (150), adhesions of the foreskin (104), phimosis (15). Of techniques Schoemaker type procedure was most commonly used with 479 procedures. Nine patients underwent exploration of the inguinal canal due to the finding of unilateral absent testicle, eleven patients underwent semicastration due to the finding of atrophic testicle.

**Results:** Out of 490 operated patients 485 had excellent results and were released to house care after 3 to 7 days. Complications were noted in 5 patients, including hematoma and/or oedema in 2 and other complications in 3 patients. Success was defined as scrotal position and lack of atrophy. Success rates by anatomical testicular position were 86.4 percent for peeping and 98 percent for canalicular testes and for those located beyond the external ring. Success rate for Schoemaker orchyopexy procedure was 95.7 percent.

**Conclusions:** Diagnosis should usually be made at birth and treatment optimally performed between 6 to 18 months of age. Our data suggest that the majority of cryptorchidism are diagnosed at pre-puberty physical examination. Success rates found in this study were similar to previously publicized data. Combining our experience in Schoemaker procedure with education of population will result in further increase of success rate after orchyopexy.

### C133

#### **The incidence and management of crossing vessels in children with pyeloureteral obstruction**

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**Introduction and Objectives:** Pelviureteral obstruction in childhood is the consequence of congenital stenosis or a crossing vessel to the lower renal pole. In a retrospective analysis of children operated at our department, we evaluated the frequency and treatment modalities of these two disorders