1- Catheterizable Serous Lined Urinary Outlet in Children and Adolescents: A Choice When Other Treatments Fail

PURPOSE: We evaluated the functional outcome of continent catheterizable outlet using the serous lined extramural tunnel technique as a continence mechanism in children and adolescents.

MATERIALS AND METHODS: We retrospectively studied all patients who underwent continent catheterizable stoma using the serous lined extramural technique between May 1993 and March 2008. Patient records were reviewed for age, sex, indication for surgery, surgical details and postoperative course. All patients were evaluated for continence with emphasis on frequency of clean intermittent catheterization. Urodynamic evaluation was done for patients with leaking stoma. Stoma related complications were also recorded.

RESULTS: A total of 37 boys and 23 girls 3 to 18 years old underwent continent catheterizable stoma using the serous lined extramural technique. Total bladder substitution was performed in 13 patients using continent ileal W-shaped reservoir, and 47 patients underwent augmentation ileocystoplasty mounted with serous lined outlet. The outlet channel was appendix in 39 patients (65%), tapered ileal segment in 13 (21.5%) and Monti ileal tube in 8 (13.5%). After a median followup of 43 months (range 10 to 180) 55 patients (91.6%) achieved continence, with catheterization frequency of 3 to 5 times during the daytime and 1 to 2 times at night. Stoma related complications were leaking stoma in 5 patients (8.4%), stomal stenosis in 6 (10%), parastomal hernia in 2 (3.3%) and reservoir stones in 8 (13.3%). Reoperation rate was 18.3% (11 patients).

CONCLUSIONS: The serous lined continent outlet seems to be a durable and efficient technique for treating children with incontinence, with an acceptable complication rate.

2- Complications of radical cysto-urethrectomy using modified Clavien grading system: prepubic versus perineal urethrectomy.

OBJECTIVES: To assess the impact of both prepubic and perineal urethrectomy on the complication rate and grade when cysto-urethrectomy is planned. To review the perioperative complications of radical cysto-urethrectomy and grade them according to the modified Clavien classification system.

PATIENTS AND METHODS: A total of 186 radical cysto-urethrectomies were performed between 1984 and 2008. Patients' charts were retrospectively reviewed, focusing on operation duration, hospital stay and complications arising. According to this new classification, perioperative complications were stratified into five grades.

RESULTS: Prepubic urethrectomy was done in 71 patients (group I) while perineal urethrectomy was done in 115 patients (group II). The mean operation duration was significantly lower in group I than in group II (173.8 and 208.9 min in groups I and II, respectively; P= 0.003). There were a total of 46 perioperative
complications in 21 (29.5%) in the prepubic group and 25 (21.1%) in the perineal group. There were 19 (90.5%) and 18 (72%) low-grade (G1-3) complications in the prepubic and perineal groups, respectively, and two (9.5%) and seven (28%) high-grade (G4-5) complications in the prepubic and perineal groups, respectively (P = 0.033). The mean hospital stay was significantly lower in group I than in group II (14.5 and 17.6 days in groups I and II, respectively; P = 0.047).

CONCLUSION: The prepubic approach has a lower incidence of serious complications with shorter operation duration and shorter hospital stay.

3-

Nephrostomy Tube Placement After Percutaneous Nephrolithotomy: Critical Evaluation Through a Prospective Randomized Study

OBJECTIVE: To evaluate the hemostatic and drainage functions of the nephrostomy tube after percutaneous nephrolithotomy through a prospective randomized study. Additionally, the effect of nephrostomy tube placement on postoperative pain, hospital stay, and the success and complication rates was assessed.

METHODS: The present study was designed to include 100 patients with upper urinary tract calculi who were prospectively randomized to tubeless (group 1) and standard (group 2) PCNL using closed envelopes. The hemoglobin and hematocrit deficits, development of hematuria and hematoma, and blood transfusion rate were compared to assess the hemostatic effect. The drainage effect was evaluated by comparing the incidence of postoperative urinary leakage, urinoma, and/or hydrothorax development.

RESULTS: A total of 123 patients were assessed for eligibility, and 100 fulfilled the study requirements. The hemoglobin and hematocrit deficits were comparable. Significant hematuria and/or hematoma were recorded in 5 and 4 patients in groups 1 and 2, respectively. Blood transfusion was required in 5 and 6 patients in groups 1 and 2, respectively. One patient with chronic kidney disease in the tubeless group required abdominal exploration because of respiratory embarrassment and a large hematoma. Transient urinary leakage was recorded in 2 and 31 patients in groups 1 and 2, respectively (P < .05). No urinoma developed. Hemothorax developed in 1 patient in the tubeless group with supracostal puncture. Postoperative pain was significantly less in the tubeless group. No statistically significant difference was found in the success rate, morbidity, or hospital stay between the 2 groups.

CONCLUSION: The hemostatic and drainage functions of the nephrostomy tube were modest. However, the tubeless approach might be not suitable for the patients with chronic kidney disease or a supracostal approach.

4-

Ileal urinary reservoir in pediatric population: objective assessment of long-term sequelae with time-to-event analysis.

OBJECTIVE: To evaluate the long-term outcomes of an ileal urinary reservoir in children.
METHODS: This was a longitudinal study of pediatric patients who had undergone total ileal substitution of the bladder. Continence status was assessed, and all patients were evaluated for kidney function and biochemical profile. Standardized growth charts were used to assess linear growth. To assess bone mineral density, dual-emission x-ray absorptiometry scanning was performed. Clavien’s scale was used to report and grade the long-term complications and their timing. We used a simple quality of life questionnaire to assess the effect of the procedure on the quality of life of the growing child.

RESULTS: A total of 17 patients were included; 3 with orthotopic and 14 with continent cutaneous reservoirs. After a mean follow-up of 87.3 months, all patients were voiding with clean intermittent catheterization, with a 94% final continence rate. Two patients (11.7%) had an estimated glomerular filtration rate of ≤ 45 mL/min/1.73 m² at the last follow-up examination. However, no clinically manifest metabolic acidosis was detected. No anemia or neurologic deficit was detected, with a low-normal serum level of vitamin B₁₂ in 2 patients (11.7%) and a low level in 1 patient (5.7%). One patient (5.7%) had chronic diarrhea. Low bone mineral density was found in 4 patients (22.8%), with 3 patients (17.1%) not exceeding the fifth percentile of height for age. High-grade complications (grade 3a-5) represented 64.5% of the complications, and the need for reintervention occurred late in the follow-up period. A high level of quality of life satisfaction was reported (88.5%).

CONCLUSION: Ileal neobladder construction allows child to pass into adolescence dry with more confidence and self-esteem, with no external urine collection set. However, long-term follow-up is mandatory to maintain the positive outcome.

5-

Feasibility of holmium laser enucleation of the prostate (HoLEP) for recurrent/residual benign prostatic hyperplasia (BPH).

OBJECTIVE: To assess the technical feasibility, functional outcome and morbidity of holmium laser enucleation of the prostate (HoLEP) for symptomatic benign prostatic hyperplasia (BPH) in patients with previous transurethral prostate surgery. HoLEP surgery for recurrent or residual BPH poses a technical challenge with uncertain outcome as a result of disturbed anatomical landmarks with no clear surgical limits.

PATIENTS AND METHODS: We retrospectively reviewed 1054 patients who underwent HoLEP for symptomatic BPH. Patients were stratified into two groups, group-I with no previous prostate surgery or primary-HoLEP (978 patients) and group-II with history of previous prostate surgery or secondary-HoLEP (76). All patients variables as well as follow-up data were assessed and compared.

RESULTS: There were no significant differences in baseline criteria between the two groups (P > 0.05). In group-II, HoLEP was done after a median (range) of 66±f (13-121) months from previous prostate surgeries, including transurethral resection of the prostate (48 patients), HoLEP (eight), transurethral incision of the prostate (nine), photosclective vaporization of the prostate (four) and other procedures (seven).
both groups, routine HoLEP technique was adopted, the plane of enucleation could be identified without extra difficulty. However, more energy per gram of prostate tissue was needed in group-II (P < 0.05). Operative auxiliary procedures were indicated in 1.9% of group-I, and 1.3% of group-II (P > 0.05). There were no operative complications or blood transfusion in group-II. The mean hospital stay and catheter time was similar in both groups. Early and late postoperative complications were not statistically different (P > 0.05). At 1 month the mean maximum urinary flow rate (Q(max)) was 22.3 and 18.8 mL/s, postvoid residual urine volume (PVR) was 46 and 45 mL, International Prostate Symptom Score (IPSS) was 7.04 and 7.08, and the health-related quality of life (HRQL) score was 1.57 and 1.56, in group-I and II, respectively. At 1 year the mean Q(max) was 23.4 and 25.9 mL/s, PVR was 32.5 and 24.1 mL, IPSS was 4.5 and 4.4, and the HRQL score was 1.2 and 1.1, in group-I and II, respectively (P > 0.05).

Reoperation for recurrent obstruction was indicated in 4% in group-I and 5.2% in group-II (P > 0.05).

CONCLUSION: Secondary-HoLEP procedures seem to be safe and technically feasible with comparable functional outcomes as those of primary-HoLEP.

6-
Factors affecting stone-free rate and complications of percutaneous nephrolithotomy for treatment of staghorn stone.

Abstract

OBJECTIVE:

To determine factors affecting the stone-free rate and complications of percutaneous nephrolithotomy (PNL) for treatment of staghorn stones.

METHODS:

The computerized database of patients who underwent PNL for treatment of staghorn stones between January 2003 and January 2011 was reviewed. All perioperative complications were recorded and classified according to modified Clavien classification system. The stone-free rate was evaluated with low-dose noncontrast computed tomography (CT). Univariate and multivariate statistical analyses were performed to determine factors affecting stone-free and complication rates.

RESULTS:

The study included 241 patients (125 male and 116 female) with a mean age of 48.7 ± 14.3 years. All patients underwent 251 PNL (10 patients had bilateral stones). The stone-free rate of PNL monotherapy was 56% (142 procedures). At 3 months, the stone-free rate increased to 73% (183 kidneys) after shock wave lithotripsy. Independent risk factors for residual stones were complete staghorn stone and presence of secondary calyceal stones (relative risks were 2.2 and 3.1, respectively). The complication rate was 27% (68 PNL). Independent risk factors for development of complications were performance of the procedure by urologists other than experienced endourologist and
positive preoperative urine culture (relative risks were 2.2 and 2.1, respectively).

CONCLUSION:

Factors affecting the incidence of residual stones after PNL are complete staghorn stones and the presence of secondary calyceal stones. Complications are significantly high if PNL is not performed by an experienced endourologist or if preoperative urine culture is positive.

7-

Synergetic effect of testosterone and phosphodiesterase-5 inhibitors in hypogonadal men with erectile dysfunction: A systematic review.

Testosterone deficiency seems to impair the clinical response to phosphodiesterase-5 (PDE-5) inhibitors in patients with erectile dysfunction (ED). In hypogonadal men, testosterone repletion was associated with enhanced sexual function in patients who failed initial treatment with sildenafil or tadalafil. We conducted a systematic review of studies that evaluated combination therapy of testosterone and PDE-5 inhibitors in patients with ED and low, low-normal testosterone levels who failed monotherapy. The studies we examine are heterogeneous with several methodological drawbacks and that, overall, the addition of testosterone to PDE-5 inhibitors might benefit patients with ED associated with testosterone

8-

Male sexual function outcome after three laser prostate surgical techniques: a single center perspective.

OBJECTIVE: To assess the change and predictors of sexual-related outcomes after laser prostate surgery.

METHODS: This is a longitudinal study of 216 sexually active men who underwent laser prostatectomy between 2005 and 2010. The International Index of Erectile Function-15 questionnaire was used both preoperatively and during the first year of follow-up. Cases with unreliable answers or patients without interested partners were excluded. All relevant data of both groups were depicted and statistically analyzed.

RESULTS: We identified 191 patients that met the inclusion criteria, 99 holmium laser enucleation of the prostate, 34 holmium laser ablation, and 58 photosensitive vaporization of the prostate (GreenLight-532-mm laser photoselective vaporization of the prostate). There were significant differences among the 3 groups regarding the International Index of Erectile Function-15 direction of change at 1 year, being unchanged in (22.2%, 24.4%, and 29.3%), improved in (60.6%, 29.4%, and 41.4), and declined in (17.2%, 41.2%, and 29.3%) in the 3 groups, respectively (P < .05). After adjusting for clinical and perioperative variables, the independent risk factors for decline in the International Index of Erectile Function score were basal International Index of Erectile Function ≥ 55 and energy to prostate ratio. In holmium laser enucleation of the prostate group, there was significant improvement of the mean overall score, erectile function, desire, and intercourse satisfaction domains (P < .05). In holmium laser ablation and photoselective vaporization of the prostate groups, there were no significant changes
between mean preoperative and postoperative scores (P > .05). The incidence of new onset retrograde ejaculation in the holmium laser enucleation of the prostate group was (77.3%) significantly different compared to (31.1%) in the holmium laser ablation group and (33.2%) in photoselective vaporization of the prostate group (P < .05).

CONCLUSION: Laser prostate surgery using more size-related laser energy might have possible negative influence on sexual function. Patients with normal preoperative sexuality are more at risk.


OBJECTIVE: To evaluate the morbidity and perioperative outcome of different laser prostate techniques among octogenarians.

METHODS: We performed a retrospective review of our prospectively maintained laser prostate surgery database between 1998 and 2012. We identified 264 octogenarians (16.5%) who underwent laser prostate surgery. Perioperative morbidity and mortality in addition to the functional outcome of these procedures were assessed. Risk factors and predictors of the outcome were analyzed.

RESULTS: The mean age at time of procedure was 84.35 ± 3.5 years. Holmium laser enucleation of the prostate was done in 171 (64.7%), holmium laser ablation of the prostate in 16 (6%), holmium laser transurethral incision of the prostate in 13 (5%) and photoselective vaporization of the prostate in 64 (24.3%). Procedures for octogenarians increased from 11% at the end of 2002 to 19% at 2012. A total of 68 perioperative complications occurred in 52 procedures (19.6%), without any perioperative deaths. There were 56 (82.3%) low-grade complications (Clavien grade I-II) and 12 (17.7%) high-grade complications (Clavien grade ≥III). A longer operating time was an independent risk factor for perioperative morbidity on multivariate analysis. Significant improvement of symptoms score (International Prostate Symptom Score-Quality of Life) associated with objective improvement of urine flow parameters (maximum flow [Q-max] and postvoid residual) were reported at different follow-up assessments in the first year (P

CONCLUSION: Octogenarians undergoing laser prostate surgery for treatment of benign prostate hyperplasia have limited perioperative morbidity. Laser prostate surgery can achieve good functional outcome and maintain quality of life of seniors. Furthermore, it is safe in seniors with a high morbidity index; however, longer operating time is an independent risk factor for perioperative morbidity.

10. Can we predict the outcome of 532 nm laser photoselective vaporization of the prostate? Time to event analysis.

PURPOSE: We evaluated the safety, efficacy and predictability of the long-term outcome of GreenLightâ"¢ (532 nm laser) photoselective vaporization of the prostate to treat patients with lower urinary tract symptoms secondary to benign prostatic hyperplasia.
MATERIALS AND METHODS: We performed a longitudinal study of patients who underwent GreenLight (532 nm laser) photoselective vaporization of the prostate at our center between June 2002 and November 2011. All patient data were prospectively maintained in the prostate unit database. Two types of laser equipment were used, including the KTP in 91 cases (31.6%) and the GreenLight HPSâ¢ in 197 (68.4%).

RESULTS: Larger glands were treated with HPS and KTP photoselective vaporization (mean ± SD volume 45.6 ± 22.5 and 39.6 ± 15.2 ml, respectively, p

CONCLUSIONS: GreenLight (532 nm laser) photoselective vaporization of the prostate seems to be safe and effective for lower urinary tract symptoms secondary to benign prostatic hyperplasia. A long lasting, successful outcome is predictable. With careful surveillance during year 1 postoperatively and early intervention for adverse events, a sustainable functional outcome could be achieved without re-treatment.