

Conclusions: On KUB, CaP urinary calculi were mostly seen as dense relatively homogenous stones and sometimes with stippled borders. With the increase in pretreatment stone size, interobserver and interdisciplinary variabilities increased.

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Pain perception during shock wave lithotripsy (SWL): Does it correlate with patient and stone characteristics?

H. Tokgoz¹, V. Hanci², O. Turksoy³, B. Erol^{1*}, B. Akduman¹, A. Mungan¹. ¹Karaelmas University, Dept. of Urology, Zonguldak, Turkey; ²Karaelmas University, Dept. of Anesthesiology, Zonguldak, Turkey; ³Karaelmas University, Dept. of Radiology, Zonguldak, Turkey

Introduction and Objectives: The purpose of this study was to investigate the correlation of various clinical parameters (number of shock wave lithotripsy [SWL] session, body mass index [BMI], patient age, gender and stone characteristics) with the pain perception during SWL procedure.

Material and Methods: According to our inclusion criteria, a total of 88 patients who underwent 165 SWL sessions for renal or ureteral stones in our institution were included. The degree of pain perception during the procedure was evaluated with 10-point visual analog scale.

Results: A significant p value was reached when a cut-off value for stone burden, was taken as 100 mm². Mean pain scores during the SWL procedures were affected by gender and the number of SWL session. However, it was not affected by laterality, patient age, BMI, and location of stone.

Conclusions: In summary, it seems that patient comfort is better during a first SWL session for renal or ureteral stones with stone burden of less than 100 mm². In addition, severity of pain during a SWL treatment may be better tolerated in male population.

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Comparison of the analgesic effects of dexketoprofen and diclofenac during shockwave lithotripsy: A randomized, double-blind clinical trial

H. Tokgoz¹, S. Yurtlu², V. Hanci², O. Turksoy³, B. Erol^{1*}, B. Akduman¹, A. Mungan¹. ¹Karaelmas University, Dept. of Urology, Zonguldak, Turkey; ²Karaelmas University, Dept. of Anesthesiology, Zonguldak, Turkey; ³Karaelmas University, Dept. of Radiology, Zonguldak, Turkey

Introduction and Objectives: This prospective, randomized and double-blind clinical study aimed to assess the analgesic efficacy of single dose intramuscular (i.m.) injection of dexketoprofen (Group DE) compared with single dose i.m. injection of diclofenac (Group DI) in patients undergoing shockwave lithotripsy (SWL) procedure

Material and Methods: A total of 70 males with single renal or ureteric stones were randomly separated into two groups. The 40 males in Group DI received 75 mg i.m. diclofenac sodium and 30 males in Group DE received 50 mg i.m. dexketoprofen trometamol 30 minutes before SWL. A 10-point visual analog scale was used to evaluate pain.

Results: The age, body mass index and mean stone burden were comparable between two groups ($p > 0.05$). Mean visual analog scale score for Group DE was statistically lower compared with the score for Group DI ($p = 0.02$). In 34 (85%) of the 40 males in Group DI, the SWL procedure was performed with no, minor or tolerable pain. But, in Group DE, 28 (93.3%) out of 30 cases evaluated the pain severity as no, minor or tolerable ($p = 0.01$). No major/ minor adverse effects were observed in Group DI, whereas in 1 patient in Group DE, dyspepsia after injection was noticed ($p = 0.423$).

Conclusions: The severity of SWL related pain was significantly better tolerated with dexketoprofen trometamol. During a SWL

procedure, analgesic efficacy of dexketoprofen was greater than that of diclofenac sodium. Although statistically insignificant, a little increased risk for gastric irritation was noticed with dexketoprofen.

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The alternative technique of ureterointestinal anastomosis with antireflux protection

I.G. Aghajanyan¹, A.A. Tsaturyan², Sh.B. Danielyan³, O.E. Dilanyan^{4*}. ¹National Institute of Health, Cjsc Surgery Institute Mikaelyan, Dept. of Urology, Yerevan, Armenia; ²National Institute of Health, Kanaker-Zeytun Medical Centre, Dept. of Urology, Yerevan, Armenia; ³National Institute of Health, Surb Nerses Mets Medical Centre, Dept. of Urology, Yerevan, Armenia; ⁴Synopsis Medical Centre, Dept. of Urology, Moscow, Russia

Introduction and Objectives: Intestinal neobladder with low pressure is method of choice for urinary diversion after radical cystectomy. Ureterointestinal anastomosis is a critical element of any surgical procedure employing intestinal segment for urine derivation. It should be technically easily execute, applicable for normally and dilated ureter, with minimum of stenosis-risk occurrence, accessible for endoscopy. Main complications in region of ureterointestinal anastomosis (UIA) are strictures (8-17%), urinary reflux (2-15%) and pyelonephritis (11-13%). To achieve protection of the upper urinary tract in patients with neobladder we designed and clinically applied the subserosal invagination (SSI) method, a new antireflux ureterointestinal reimplantation technique. We present the operative procedure and comparative results.

Material and Methods: After ureters mobilization spatulation and intubation with soft ureteral catheter are performed. Ureter and neobladder are anastomosed with "anchor" sutures by "back to side" type. The neobladder wall is sutured over the ureter by sero-serosal sutures. We created an orthotopic ileal neobladder after radical cystectomy in 99 patients for bladder cancer with 4 different types of uretero-intestinal anastomosis. The comparative study included 4 groups according to these types: 1 - UIA without antireflux protection, 2 - UIA with antireflux protection by SSI, 3 - UIA by subserosal extramural tunnel type, 4 - UIA by submucosal implantation type (LeDuc). Evaluation included clinical, radiological, laboratory, urodynamic and endoscopic evaluations. Mean follow-up was 34 months.

Results: Reflux was reported in 11/23 cases (23.9%) for 1 group, 1/32 (1.6%) for 2 group, 1/17 (2.9%) for 3 group and 5/27 (9.3%) for 4 group. Strictures were reported in 6/23 cases (13.0%) for 1 group, 1/32 (1.6%) for 2 group, 5/17 (14.7%) for 3 group and 8/27 (14.8%) for 4 group. Accessible for endoscopy of the ureters orifices after 3 months of surgery was possible in 34.8% for 1 group, 88.5% for 2, 75.0% for 3, and 23.5% for 4.

Conclusions: The ureterointestinal anastomosis by subserosal invagination type has the optimal antireflux protection. It is associated with low risk of stricture occurrence and ensure high endoscopic visualization.

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The analysis of the way of the treatment of staghorn stones in a kidney

J. Kawecki, W. Duda, H. Augustyniak, P. Chwastek*. Memorial Michalowski Hospital, Dept. of Urology, Katowice, Poland

Introduction and Objectives: The problem of selecting a method in renal staghorn calculus treatment so as to provide the best results for patients is of great importance. There are several approved methods of staghorn stone crushing, such as PCNL, ESWL and URS with holmium laser and traditional open surgery. The selection depends on many essential factors.

Material and Methods: The treatment methods of consecutive 43 patients who were treated due to renal staghorn calculi

from April 2004 to May 2005 in the E. Michałowski's Hospital in Katowice were analysed. 41 patients had PCNL as a main method and, when the need appeared, further stages with various techniques: another PCNL, URS, D-J catheter kidney intubation, in order to evacuate all the stones from the kidney. Two patients had classical operations due to complications caused by other disorders: anatomical anomaly (horseshoe kidney) and active lupus erythematosus and further additional procedures necessary to total stone removal.

Results: All patients achieved total recovery from the staghorn calculus. The aim of our analysis was to determine what investment of skills and equipment was needed to achieve the therapeutic success. In group I: (boarder stone fills renal pelvis or renal pelvis and part of one calyx) 7 patients achieved full recovery after 8 procedures (one patients had an additional kidney intubation with D-J catheter). In group II: (partial staghorn stone fills renal pelvis and two calyces) 18 patients had 31 procedures (PCNL, EWSL+D-J) and in group III (total calculus – the stone fills all the pelvocalyceal system) 21 patients had 53 procedures. In the group of patients with complications caused by other disorders, surgical operation as a monotherapy did not remove all the stone – they required 8 or 5 procedures.

Conclusions: The treatment of renal staghorn calculi should be done by endoscopy in several stages. Traditional treatment with open surgery does not ensure a removal of all the stone, so the combined therapy consisting of other procedures, including endoscopy, must be applied. Renal staghorn calculus is a difficult urological problem and requires individual financing including expenses of multi-stage treatment.

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Feasibility of prepuce reconstruction in hypospadias repair

M.K. Orkiszewski¹*, J.A. Madej². ¹Nicolaus Copernicus University, Dept. of Pediatric Surgery, Poznań, Poland; ²Gizinsky Medical Centre, Dept. of Pediatric Urology, Bydgoszcz, Poland

Introduction and Objectives: Prepuce reconstruction has been part of hypospadias repair in selected patients. It has been our policy to try to repair the prepuce in all the patients with hypospadias as part of total penis reconstruction.

Material and Methods: 92 patients aged 0.8–15.5 years admitted for primary hypospadias repair were examined / 28.3% distal, 53.2% middle, 18.5% proximal /.

Results: Prepuce repair was performed in 72.8% of all, in 80.6% and 83.6% with distal and middle hypospadias, but in proximal hypospadias – 17.6%. On follow-up 88.1% patients had a retractable prepuce, in 6% partial or complete dehiscence was found, in 6% phimosis developed. Urethral fistula developed in 4% patients.

Conclusions: Foreskin reconstruction was possible in the majority of patients with distal and middle hypospadias, but not so in proximal variants.

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Colics from the heart

M.S. Ahmad¹*, B.D.R. Gowda², D. Chadwick², G.P. Naisby². ¹James Cook University Hospital, Dept. of Urology, Stockton on Tees, United Kingdom; ²James Cook University Hospital, Dept. of Urology & Radiology, Middlesbrough, United Kingdom

Introduction and Objectives: Acute renal infarction is an often missed yet an established entity in patients with cardio-vascular risk factors. Britain has got the highest incidence of ischemic heart disease and the fastest growing geriatric population in Europe, therefore more thrombo-embolic pathology involving the renal tract can be expected.

Material and Methods: Data of 434 patients with a clinical diagnosis of ureteric colic and haematuria was reviewed retrospectively presenting between January 2007 and December

2008. 22 patients with persistent pain and/or raised inflammatory parameters with no evidence of obstructive uropathy on IVU (182) or non-contrast CT (252) underwent contrast enhanced CT scans. Cardio-vascular risk factors were concomitantly noted.

Results: Out of the group having contrast CT, 5 patients (3 males, 2 females) with mean age was 67.3 years, were shown to have renal infarctions (2 right & 3 left kidney). Single infarct was seen in 1 while multiple infarcts were noted in 4 cases. Overall 1.15% cases of the cohort demonstrated renal infarction. 3 patients had rate controlled atrial fibrillation and 2 had a previous myocardial infarction.

Conclusions: Acute renal embolus is a rare entity, accurate data regarding presentation, laboratory tests, and diagnostic techniques and treatment is not yet available. In patients presenting with the triad of 1) high risk for thromboembolic event 2) persistent flank/abdominal pain 3) haematuria +/- raised inflammatory parameters having had a normal IVU/CT KUB, a contrast enhanced CT scan to rule out renal infarction should be considered.

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Reimplantation of the strictured ureter – laparoscopic approach

A. Gołąb*, M. Słojewski, M. Soczawa, B. Gliniewicz, A. Sikorski. Pomeranian Academy of Medicine, Dept. of Urology, Szczecin, Poland

Introduction and Objectives: Laparoscopic technique successfully replaces classic open surgical methods in urology. Ablation surgery is a method of special interest for laparoscopy. Reconstructive urology less frequently applies laparoscopic techniques that mainly depend on the center's experience. The aim of the study is to evaluate the course and outcome of laparoscopic treatment of the strictured distal ureter.

Material and Methods: Two males aged 41 and 73 years with the diagnosis of strictured left distal ureter with subsequent symptomatic hydronephrosis underwent surgery. The stricture of the distal ureter was caused in both cases by scars resulting from transurethral resection of the superficial cancer of urinary bladder located nearby the ureter's orifice. The diagnosis was confirmed by urography and pyelography performed after implantation of the nephrostomy catheter. The length of the stricture was 2 cm. Both patients did not achieve patency of the ureter despite preoperative deep resection of the scar. No features of the malignant relapse were found. Laparoscopic procedure was performed using 3 working ports and camera port. Mobilization of the colon was followed by identification and preparation of the distal ureter. Then the distal ureter was excised from the urinary bladder, spatulated and after ureteric stenting a new ureterovesical anastomosis was created. Intermittent sutures were applied through the full thickness of the urinary bladder wall. Ureteric stent was removed 4 weeks after surgery.

Results: Mean surgery time was 145 minutes, blood loss –25 ml and postoperative hospitalization 5 days. No intraoperative or postoperative complications were noted. The efficacy of the treatment was evaluated basing on patient interview and intravenous urography performed 1–2 days following the removal of the ureteric stent. In each case normal urinary flow from the kidney to the urinary bladder was noted. Cystoscopy performed 3 months post-surgery revealed normal picture of the urinary bladder and orifice of the reimplanted ureter in the treated males.

Conclusions: Laparoscopic reimplantation of the ureter is an efficacious and safe alternative to open surgery in the chosen patients treated in the centers experienced in reconstructive laparoscopic surgery.