

S135**Bacterial colonization of percutaneous nephrostomy**

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Introduction and Objectives: Percutaneous nephrostomy (PCN) is widely used in urology. The aim of this study was to assess the frequency bacterial colonization of PCN, PCN-associated bacteriuria, correlation of the indwelling time with bacterial colonization and value of urine culture to identify colonizing bacteria.

Material and Methods: The prospective study was performed between 2005–2008 in 40 patients, with complete ureteric stone obstruction. PCN was inserted in all patients to relieve the obstruction. All patients were treated by ESWL (Siemens Lithostar) and PCN were removed after complete stone desintegration and elimination. Sterile urine samples were taken through the nephrostomy canal after inserting and prior to removal of PCN. PCN was removed under sterile conditions and proximal (pigtail) ends were cut off and placed in the culture media for bacterial evaluation. Antibiotics were administered according to the results of positive urine samples and continued for 5–7 days and the remaining patients were treated 3 days with oral antibiotics (Ofloxacin or Cefixime). There were not patients with clinical signs of urinary tract infection and none of them were treated with antibiotics prior to PCN removal.

Results: Bacteriuria was found in 65% and bacterial PCN colonization in 60% of patients. There was not statistically significant increase of positive urine samples taken during PCN insertion and after PCN removal ($p=0.625$). Bacterial colonization was identified in (20/24) 83.3% urine samples and (4/24) 16.7% colonized PCN associated with a negative urine culture. The same colonizing microorganisms were identified in (10/24) 41.6%. The rate of colonization was 8.3%, 25% and 66.7% when indwelling time is less than 4 weeks, 4–6 weeks and more than 6 weeks, respectively. Sterile urine and colonized PCN were detected in 4/40 patients, and in 6/40 positive urine and sterile PCN were found. Positive urine and colonized PCN were detected in 20/40 and in 10/40 sterile urine and sterile PCN were found.

Conclusions: PCN colonization rate was 60% in our study and it is common if the indwelling time is more than 4 weeks. Bacteriuria is associated with insertions of PCN. Urine culture is the noninvasive method for detecting PCN colonization (83.3%) but it is not reliable in identifying the colonizing bacteria (only 41.6%). Prophylactic antibiotics do not prevent PCN colonization.

S136**CT urography: clinical indications, limitations and radiation dose: a proposed approach**

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Introduction and Objectives: In our exhibit we will demonstrate a proposed protocol that we use at our institution, based on the most frequent present-day clinical indications and the possible limitations of the examination.

Material and Methods: Computed tomography urography (CTU) is a relatively new diagnostic imaging modality providing comprehensive evaluation of the upper and lower urinary tract. As multidetector CT has become more widely available, CTU has begun to replace other imaging techniques, especially intravenous urography (IVU).

CTU is defined as a diagnostic examination optimized for imaging the kidneys, ureters, and bladder. The examination involves the use of multidetector CT with thin-slice imaging,

intravenous administration of a contrast medium and imaging in arterial, corticomedullary and excretory phases. Two and Three-dimensional images of the targeted organs can be then obtained through digital image reconstruction.

Results: CTU is justified as a first-line test for patients with macroscopic haematuria at high-risk for urothelial cancer. Renal tumors and their vascular structures can be imaged in high detail with CTU. CTU can also be useful in the investigation of urinary diversion procedures following cystectomy, hydronephrosis, chronic symptomatic urolithiasis including planning of percutaneous nephrolithotomy (PCNL), traumatic and iatrogenic ureteral injury, complex urinary tract infections and in the diagnosis of bladder tumours.

The relatively high radiation dose of multiphase CTU is a significant limitation of the widespread acceptance of this technique. Strict indications for multiphase CTU are important tools to manage this relatively high-dose examination.

Conclusions: CT Urography is a non-invasive and relatively safe method for the imaging of the entire urinary tract. Its use in selected cases greatly increases the diagnostic possibilities of urinary tract imaging methods. As multidetector CT scanners become more widely available, this imaging method will supplant older imaging techniques. Surprisingly, in many reviews only one CTU technique is suggested to encompass all clinical indications. Therefore we propose a differential approach used in different patient populations as the next logical step in the evolution of CTU as a powerful yet dose-efficient test for urinary tract assessment.

S137**Urological complications of kidney transplantation: 13 years' experience**

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Introduction and Objectives: Urological complications have caused considerable morbidity in kidney transplantation occasionally resulting in graft loss and death. The outcome for transplant recipients has improved due to newer immunosuppressive protocols and advancements in surgical techniques. The current rates of major urological complications in large series are around 6.5%.

Material and Methods: We describe our experience of urological complications in series of 260 live donor kidney transplants, performed in period of 30th Jan 1996. – 27th Jan 2009. The mean age of transplant recipients was 36, and male to female ratio of 2:1. All recipients, except two, underwent extravesical modified Lich Gregoir ureteroneocystostomy (UCN) with two parallel incisions, and all were stented with 6-Fr polyurethane double-J stent. In two patients we performed direct technique of UCN. Tube drains were used routinely and removed when 24-hour drainage was less than 20 ml. The Foley catheter removed between 5–10 days, and the double-J stents after 4 weeks. Graft function was monitored by daily serum biochemistry and urine output. All episodes of urinary leakage, obstruction, stent-related problems and UTI were recorded.

Results: There were 34 complications in 31 patients, an incidence of 13.0%. The incidence of ureter-related major complications rate was 3.5%, the incidence of UTI was 8.9%, retention after removal of urinary catheter was noted in 1 (0.4%) patient, and urethral stricture was developed at 1 (0.4%) patient. Urinary leakages occurred in 5 cases. In one patient we made revision because of a large urinoma and significant leakage from pyelon. Suture of pyelon was performed. The rest 4 cases were treated conservatively with delayed removal of double-J stent and prolonged bladder catheterisation. Overall 4 patients had hydronephrosis due to extrinsic pressure of

the ureter, 2 each due to urinoma and lymphocele. Two patients who had direct UCN developed intrinsic ureteric obstruction ureterovesical anastomosis after removal of double-J stents, with consecutive hydronephrosis. One was treated conservatively with re-insertion of double-J stent, and the other was reoperated and performed UCN with Boari flap technique. All patients with UTI were treated with culture-specific antibiotics and maintained on prophylactic antibiotics. Urethral stricture at one patient was managed with optical internal urethrotomy and periodic dilatations.

Conclusions: In our series there is a low incidence rate of intrinsic ureteric obstruction (0.8%) because of routine use of stented extravesical anastomosis by modified Lich Gregoir technique. The rate of intrinsic ureteric obstruction may be reduced markedly with this technique. Ureteral leakage and extrinsic compression may occur despite the presence of stents. Early catheter and stent removal does not compromise the anastomosis and may help in reducing the rate of UTI.

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Evaluation of pain perception in patients undergoing transurethral procedures under general or epidural anaesthesia

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Introduction and Objectives: The majority of published reports investigate the results of general and epidural anaesthesia separately. Several papers compare the effect of these methods in terms of peri- and post-operative morbidity (blood loss, side-effects and possible complications). To our knowledge this is one of the few attempts of comparing the 2 methods by recording the patient's pain perception and tolerance of the transurethral procedures.

Material and Methods: The study comprised 97 and 47 patients who underwent transurethral bladder tumour resection (TUR-B) and prostatectomy (TUR-P), respectively. Post-operative pain severity was recorded using an 11-point visual analogue scale (VAS). Pain scoring was stratified by age, gender, tumour stage and grade. Clinical and demographical characteristics were compared using the Mann-Whitney U test for continuous variables and the chi-square test for categorical variables. Odds ratios were used to quantify the strength of association between variables. Kruskal-Wallis test was used to estimate equality of population medians among groups and the Mann-Whitney U test for comparison between the groups. The Spearman correlation coefficient (when appropriate) was used to examine the independence between categorical variables.

Results: VAS score was greatest at discharge from recovery room (time 0h) for general anaesthesia vs epidural [1.5(0-8) vs 0 (0-8) ($p=0.027$)]. The pattern changes significantly at 8h and 12h for general anaesthesia's analgesic efficacy compared to epidural [1.02 (0-6) vs 2.05(0-6) and 1.62 (0-7) vs 0.2 (0-8) ($p=0.017$ and $p=0.007$ respectively)]. A higher VAS score was observed from 0h to 24h for pT2 patients. Patients with resected tumour volume $>10\text{ cm}^3$ presented VAS score >3 at 8h and 24h ($p=0.050$, $p=0.036$, respectively).

Conclusions: It seems that epidural anaesthesia is more effective during the first 2 post-operative hours, while general prevails at later stages and at larger traumatic surfaces. Finally, we incidentally found that tumour stage plays a significant role in post-operative pain, a point that requires further verification.

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Evaluation of the postsurgical pain management after urological surgery

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Introduction and Objectives: A sufficient pain therapy affects postoperative wound healing process. In our hospital the pain management after open surgical prostate gland procedure range from the oral therapy algorithm with Oxycodon to the intravenous demand therapy with Piritramid. The effect of this therapy was prospective evaluated.

Material and Methods: 60 patients have undergone radical prostatectomy and/or enucleation of prostate gland adenoma in 2007 at our institution. The demand on short infusions with Piritramid was up to the 7th postsurgical day in those patients. Since August 2008 a new postoperative pain therapy was evaluated in 52 patients based on oral medication with prolonged Oxycodon, if necessary, combined with morphine. The pain intensity was evaluated in both groups by means of VAS.

Results: Due to the oral therapy pattern from the first postoperative day until the hospital release a reduction of the average pain intensity has been archived from 2.34 (range 0.29-5.11) to 1.71 (range 0.05-3.53) in VAS scale. The groups were comparable regarding demographic and clinical parameter (age, BMI, ASP). The difference was statistically significant in one multi-variants analysis ($p=0,001$).

Conclusions: The oral opioids seem to be a superior alternative to the intravenous pain management for the postsurgical analgesia after large open surgical prostate interventions. Therefore at our institution the postoperative therapy management was changed to oral medication regime.

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The use of bupivacaine with morphine or neostigmine

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Introduction and Objectives: to compare Neostigmine and Morphine effectiveness in patients underwent urologic surgery and spinal anesthesia

Material and Methods: Participants were 90 patients that underwent spinal anesthesia and had an urology surgery, participant were classified in three groups. Respectively each group received 15 mg Bupivacaine(sol.0.5%) and 50 ug Neostigmine, and the other group instead of Neostigmine received Morphine 300ug. And the third group received normal saline 0.5 ml. On those patients was monitored carefully maximal motor block level, the time that anesthesia lasted, the need for analgesics in 24 hours, interval analogue scale (VAS) pain score, and the frequency of side effects in 24 hours post anesthesia.

Results: Reviewing the results in this study was not seen any significant difference on the maximal block level, and sensory mids in the three groups. To the group that took Morphine, analgesia last longer and the need for analgesic to control post-operative pain was delayed in comparison with the group that received Neostigmine (<0.05). Pain level (VAS) total on the first 24 hours was significantly higher for the group that received sol saline compared with the group that received Morphine or Neostigmine ($P<0.5$). The level of motor block had significant differences regarding the lasting time, the group