PDG-5:
RISK FACTORS OF SEPSIS DEVELOPMENT AFTER PERCUTANEOUS NEPHROLITHOTOMY

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Purpose: Sepsis is a life-threatening complication after percutaneous nephrolithotomy (PCNL). The aim of this study is to identify the possible predisposing factor of sepsis after PCNL.

Materials and Methods: Retrospective review of all patient received PCNL between January 2001 and December 2015 in our hospital. There were 1477 cases included and 19 (1.29%) of them developed sepsis after PCNL. Univariate and multivariable analyses identified risk factor associated with sepsis after PCNL.

Results: There was no difference in gender, age, body mass index and diabetes mellitus history in developing sepsis. There also no significant difference was noted in the mean stone size in sepsis or non-sepsis group. Comparing the operation time, no significant difference was noted between two groups. In 19 patients developed sepsis, 17 of them was admitted for renal stone (OR: 8.70; 95% CI 2.00–37.79; P = 0.004) and 2 of them for staghorn stone. There was no sepsis was noted in 313 of 1477 cases for upper ureteral stone after PCNL. Furthermore, Residual stone after PCNL was noted in 10 of 19 patients (OR: 3.36; 95% CI 1.36–8.34; P = 0.009).

Conclusion: The major factors of developing post PCNL sepsis are pre-operative renal stone and residual stone after PCNL. Early identification of high-risk patient after PCNL may help broad-spectrum antibiotic prescription earlier in order to control sepsis progression.

PDG-6:
The DISTRIBUTION OF URINARY STONE COMPONENT FROM ROUTINLY STONE ANALYSIS IN SOUTH TAIWAN

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Purpose: Analysis of urinary stones is important to provide adequate treatment, prevention, and health educations. The purpose of this study was to determine the type, composition, age, gender and anatomic sites of urinary stones, and their relationships with metabolic syndromes in patients treated at NCKUH during the period from 2010 to 2015.

Materials and Methods: We retrospectively reviewed patients who received stone analysis from 2010 to 2015 in a single medical center in South Taiwan. A total 1061 patients was enrolled. Stone specimen was submitted by patients or collected by endoscopic surgery to NCKUH. All South Taiwan. A total 1061 patients was enrolled. Stone specimen was submitted by patients or collected by endoscopic surgery to NCKUH. All stone analyses were performed at the clinical laboratory. Other than stone analyses, serum creatinine, urine pH value, 24hr urine calcium, and 24hr urine citrate were all collected. Based on preoperative image, stone location and stone size were also recorded.

Results: Among all, CaOx remained the most common stone component (53.3%), which followed by Ca3(P04)2 (27.9%). Mean age of all patients was 58.79 year old. Brushite stone accounted for 1.8%. Patients with metabolic stones were significantly older than CaOx or Ca3(P04)2 (69 v.s. 55 and 58) (p < 0.01). The ratio of male and female was obviously high in CaOx (8.3:1) and metabolic group (28:0:1). Infection stone was dominant in female population (1:2.8). Urine pH was lower in CaOx and metabolic groups (pH = 5.9 and 5.8). 24hr urine calcium was significantly higher in CaOx group (219 mg/day, p = 0.01). Pre-operative renal function was worst in metabolic group (eGFR = 51.4 mL/min/1.73m²). Infection stones were prone to recur than other stone components, which need 2.2 times of procedure to manage. On the other hand, the stone component distribution changed within age. Older people will have more Ca3(P04)2 and infection stones.

Conclusion: CaOx was still the most common stone components in South Taiwan. However, Ca3(P04)2 accounted for more percentage in South Taiwan than other reports before. Interestingly, metabolic stones shared higher incidence in South Taiwan, which may be explained to be related to unique climate and diet habits. Metabolic stones had also higher incidence in older groups.

Podium-7
Laparoscopy

PD7-1:
ROBOT-ASSISTED RADICAL NEPHRECTOMY AND BLADDER CUFF EXCISION – A SINGLE INSTITUTE EXPERIENCE

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Purpose: For patient with localized upper tract urothelial carcinoma, radical nephrectomy and bladder cuff excision (RNU+BCE) was the standard treatment. In recent years, robot-assisted RNU and BCE (RaRNU+BCE) had been another choice of surgical intervention. This article was aimed to analyse the efficacy and peri-operative outcomes regarding RaRNU+BCE by this single institutional experience.

Materials and Methods: From March 2012 to November 2015, total 54 patients with upper tract urothelial carcinoma were treated with RaRNU+BCE at Taipei Veterans General Hospital. We collected demographic data, histopathological reports, and peri-operative complications.

Results: Total 54 patients were included in our study. The mean age was 71.9 ± 9.9 (range 48–88) and the mean body mass index was 23.5 ± 2.9 (range 16.4–30.8). Median operative time was 314 min. (RaRNU: 133.9 ± 41.4 mins, RaBCE: 72.9 ± 25.7 mins). The first docking time was 26.8 ± 7.7 mins and the second docking time was 163.6 ± 67 mins. Median bleeding volume was 877.1 mL. Pathological stage distribution was 27.8%, 7.4%, 31.5%, 13.0%, 33.3% and 5.6% in pTa, pT1, pT2, pT3 and pT4, respectively. Complications occurred in 7 cases (13%), with 4 grade 1 and 3 grade II by Clavien-Dindo classification.

Conclusion: Our experience showed RarnU+BCE is an technically feasible and safe procedure for selected patients with upper tract urothelial carcinoma.

PD7-2:
LAPAROENDOSCOPIC SINGLE SITE (LESS) PARTIAL NEPHRECTOMY

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Purpose: Laparoscopic or robotic-assisted partial nephrectomy has gained wider acceptance as a surgical technique in treating small renal tumors. Laparoscopic single site partial (LESS) partial nephrectomy is still a technically demanding surgery to this day. We present our technique of LESS partial nephrectomy, one that is performed with limited warm ischemic time.

Materials and Methods: From March 2012 to March 2016, fifteen patients of Kaohsiung Medical University Hospital and Kaohsiung Municipal Ta-Tung Hospital with localized renal parenchymal tumor (stage T1) were included. Our experience showed RaRNU+BCE is an technically feasible and safe procedure for selected patients with upper tract urothelial carcinoma.

Results: Fifteen patients were included in this study. Mean patient age was 61.3 years (range47–76). Mean tumor size was 3.0 cm (range 1.7–6.3). Mean RENAL nephrometry score was 5.1 (range 4–7). The average operation time was 191.0 minutes (range 160–245). The average warm ischemic time was 15.6 minutes (range 9–26). Mean estimated blood loss was 230 mL (range 30–650). No recurrent tumor can be identified at a mean follow-up of 19 months postoperatively.

Conclusion: Our technique has shown to reduce warm ischemic time significantly and provide patients with excellent functional and cosmetic outcomes without impacting oncological results. With this technique, LESS partial nephrectomy will be a safe and effective technique for patients with stage T1 tumor.