Purpose: Only few studies in Taiwan showed benefits of tubelss percutaneous nephrolithotomy (TPCNL) that were superior to the conventional percutaneous nephrolithotomy (PCNL). In our study, we would like to report our experience of performing tubeless PCNLs with hemostatic sealant (Flosaeal) in first 15 patients compare to conventional PCNL. Our object was to evaluate the safety and benefit of tubeless PCNL with Floseal use in all patients.
Materials and methods: A retrospective review of the charts of patients who underwent PCNL at our institute from June 2014 to March 2015 was performed. The 30F Amplatz sheath system, occlusion balloon catheter, and Floseal as a sealant were applied to the tubless PCNL group. Demographic data, stone characteristics, perioperative course, and complication rates were collected and assessed.
Results: Out of 62 patients included, 15 patients received tubeless PCNL while 47 patients received conventional PCNL. There was no difference between these 2 groups regarding age, gender, BMI, pyuria, number of stone and stone location. The tubeless PCNL group had higher ASA (American Society of Anesthesiologists General Classification) score ($p = 0.04$), shorter hospital stay ($p = 0.03$), less post-operative pain score ($p = 0.02$), less post-operative blood transfusion rate ($p = 0.002$), less analgesia used ($p = 0.02$) and less post-operative fever ($p = 0.01$), when compared with conventional group. There were no significant differences in operating time, operative blood loss, stone free rate, decline of hemoglobin and postoperative ileus between these two groups.
Conclusion: Our report matches the previous reports regarding shorter hospital stay, less pain, analgesia used and less complication rates in tubeless PCNL with Floseal use.

Laparoscopy

MP3-4.
EXTERNAL VALIDATION OF RENAL NEPHROMETRY SCORE TO ACCESS THE PERIOPERATIVE PARAMETER FOR LAPAROSCOPIC PARTIAL NEPHRECTOMY IN A SINGLE INSTITUTION

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Purpose: RENAL Nephrometry Score (RNS) has been proposed as an anatomical classification system for renal masses to investigate the influence on perioperative outcomes and complications. The aim of this study was to assess the system for external validation.
Materials and methods: The single-surgeon database enrolled patients who had undergone laparoscopic partial nephrectomy by either retroperitoneal or transperitoneal approaches from December 2008 to September 2013, had been proved by IRB. Exclusion criteria is combined surgery. Renal tumors were categorized by RNS sum score as low (4–6), intermediate (7–9) and high (10–12). We reviewed peri-operative outcomes including operation time (OT), length of saty (LOS), estimated blood loss (EBL), ischemic time, either is cold or warm, need of blood transfusion during operation. Post-operative complications were categorized by the modified Clavien-Dindo classification system. The data was collected retrospective and analyzed by PASW ver. 18.0.
Results: Total 53 patients were enrolled mean age 49.9 ± 13.52. Of the 53 patients, there were 15 low, 26 intermediate and 12 high score lesions. There was no statistically significant difference in the demographics of the three groups. Total complication rate (22.5% vs 26.6% vs 31.5%; trend $P = 0.017$) and grade 3 complication rate (24% vs 26% vs 31%; trend $P = 0.082$) had significant difference between low, intermediate and high score groups, respectively. There was no statistic difference in operative time (trend $P = 0.403$), ischemia time (19.2 vs 24.9 vs 24.4; trend $P = 0.427$), EBL (trend $P = 0.883$), transfusion rate (trend $P = 0.5$), and LOS (trend $P = 0.206$).
Conclusions: The RNS may categorize tumors based on the technical difficulty of performing LPN when predict complication rate, especially high grade complications. The others parameters have trend difference but not achieved statistic difference.

MP3-5.
EFFICACY AND OUTCOME OF TOTAL EXTRAPERITONEAL HERNIORRHAPHY (TEP) IN PATIENTS WITH RECURRENT INGUINAL HERNIA

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Purpose: This study aimed to evaluate the efficacy and outcome of total extraperitoneal (TEP) herniorrhaphy in patients with recurrent inguinal hernia.
Methods: Between January 2009 and September 2014, 472 patients underwent TEP herniorrhaphy for inguinal hernia. In this cohort, 38 patients who ever received previous traditional open herniorrhaphy were defined as study group. For the comparison group, 76 patients who did not have previous hernia repair history were randomly selected to match the study group in terms of age, sex and laterality of inguinal hernia. Perioperative data including patients' demographics, operative time, pain scale, conversions, length of hospital stay, recurrence, and complications were recorded and analyzed.
Results: In this study, the mean follow-up period were 24.5 months (7-66). The operative time in study group and comparison group were 99.7 and 90.2 minutes, respectively ($p = 0.8$). The pain scale was higher in study group than that in comparison group, but not significant (2.8 vs. 2.3, $p = 0.7$). No conversion was needed in both groups. The patients in both groups could discharge on the first postoperative day, without exceptions. The hernia recurrence rate were similar between study group and comparison group ($p = 0.7$), so as the complication rates ($p = 0.2$).
Conclusions: TEP herniorrhaphy for patients with recurrent inguinal hernia is safe and effective. In this study, no significant differences were observed between the two groups in terms of operating time, pain scale, analgesic use, hospital stay and complications.

MP3-6.
COMPARISON OF LAPAROENDOSCOPIC SINGLE-SITE VERSUS CONVENTIONAL MULTIPLE-PORT LAPAROSCOPIC HERNIORRHAPHY: A SYSTEMIC REVIEW AND META-ANALYSIS

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Purpose: We systemically reviewed published literatures and performed meta-analysis to compare the surgical outcomes between Laparoendoscopic single-site over the multiple port total extraperitoneal approach in hernia repair.
Materials and methods: We performed a systemic search of PubMED® and Cochrane review for all randomized controlled trials and comparative trials that compared the efficacy and safety between LESS-TEP and MP-TEP. The evaluated outcomes included perioperative parameters (operative time, conversion rate), hospital stay and complications (seroma, delay return of bladder function, post-operative pain, and recurrence). The Cochrane Collaboration Review Manager software (RevMan®, Version 5.2.6) was used for statistical analysis.
Results: There were 10 trials met the inclusion criteria and included for meta-analysis. Totally, there were 595 and 514 patients underwent LESS-TEP and MP-TEP, respectively. The LESS-TEP took significantly longer operative time than the MP-TEP in unilateral hernia repair (weighted mean difference (WMD): 4.11 minutes, 95% CI = 0.76–7.46, p = 0.02) while not in bilateral hernia repair (WMD: 3.87 minutes, 95% of CI: −2.59~10.33, z = 1.17, p = 0.24). There were no significant differences in surgical outcomes with regard to post-operative pain scale, conversion rate, hospital