

Conclusion: This nomogram is a predictive tool, upon external validation, that can be used to counsel male patients with OAB symptoms in predicting the presence of BOO.

**IPD14:
DIABETES MELLITUS PATIENTS REQUIRE HIGHER RATES OF CONTINUING MEDICATION AFTER TRANSURETHRAL RESECTION OF PROSTATE: IMPLICATIONS FROM TAIWAN NATIONWIDE POPULATION-BASED COHORT STUDY**

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Purpose: The aim of this study was to compare the clinical outcomes between diabetic patients and non-diabetic patients receiving transurethral resection of prostate (TUR-P).

Materials and Methods: This analysis was a retrospective cohort study using 13 years (2000–2012) of claims data from Taiwan's National Health Insurance Research Database (NHIRD). A total of 4887 patients who had persistent lower urinary tract symptoms (LUTS) and underwent TUR-P for benign prostate hyperplasia (BPH) were enrolled and divided into two groups: Diabetes mellitus (DM) group and Non-DM group. The patients' characteristics, post-operative clinical outcomes, and the medication records after TUR-P were compared.

Results: There was no difference between the two groups in regards to age, ratio of urinary tract infection (UTI) and urinary retention before surgery. The pre-operative medication statuses were also similar between the two groups. However, DM group patients had a higher prevalence of comorbidities. Post-operatively, the DM group had lower rates of UTI (OR, 0.78; $p=0.009$) and higher rates of urinary retention requiring catheterization (OR, 1.35; $p=0.01$) within 1 month after TUR-P. Both of the proportions became insignificantly different during the 1 month to 1 year post-operative period. A higher proportion of patients with DM took anti-muscarinics (OR, 1.23; $P = 0.032$) within the first 3 months and α -blockers (OR, 1.18; $P = 0.049$) during 3–12 months after receiving TUR-P. Overall, the DM group patients had a worse post-operative medication-free survival compared to that of non-DM group patients (95% CI=1.14; $p=0.005$).

Conclusion: Diabetes Mellitus patients require higher rates of continuing medication after TUR-P, especially anti-muscarinics in three months post-op and alpha-blocker after three months post-op. Diabetes Mellitus patients also had higher incidence of urine retention after surgery.

**IPD15:
ONE-YEAR ANATOMIC OUTCOMES OF LAPAROSCOPIC SACROCOLPOPEXY IN KAMEDA MEDICAL CENTER**

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Purpose: For pelvic organ prolapse (POP) patients, voiding dysfunction is associated with the increasing severity of cystocele. After surgical correction of the prolapse, 89% patients had normalization of voiding dysfunction (Fitzgerald MP, 2000). Prolapse repair surgery plays an important role to resolve female lower urinary symptoms. Particularly, laparoscopic sacrocolpopexy (LSC) provides the outcomes of the gold standard abdominal approach while offering the benefits of minimally invasive surgery (Gabriel B, 2011). Since 2014, LSC became a new option for POP patients covered by public health insurance in Japan. The aim of this study is to clarify the postoperative anatomical change after LSC in Kameda Medical Center.

Materials and Methods: We did a retrospective medical chart review between April and December 2014 for patients who underwent LSC and being followed up for one year in our center. The anatomical change was assessed by using POP-Q. Recurrence rate and specific site were also investigated.

Results: A total of 146 patients, aged 65.1 ± 7.8 , with average BMI 23.4 ± 2.8 , were retrospectively enrolled. Average blood loss was 22.8 ± 25.7 ml with 238.5 ± 45.3 minutes in operation time. For anatomical change assessed by POP-Q, Aa changed from 1.1 ± 1.4 to -2.9 ± 0.3 ; Ba changed from 2.5 ± 2.0 to -2.9 ± 0.4 ; C changed from 1.4 ± 3.0 to -7.4 ± 1.4 ; gh changed from 4.4 ± 1.1 to

3.7 ± 0.8 ; pb changed from 3.5 ± 0.7 to 3.7 ± 0.5 ; tvl changed from 8.1 ± 1.1 to 8.6 ± 1.2 ; Ap changed from 0 ± 1.6 to -2.8 ± 0.6 ; Bp changed from 0.6 ± 2.4 to -2.7 ± 0.7 ; D changed from -3.2 ± 2.5 to -8.3 ± 1.4 . Aa, Ba, C, gh, tvl, Ap, Bp, and D of POP-Q showed significant differences between pre- and post-operation. 8 patients (5.5%) showed recurrence during first year after LSC. 2 patients were found to have recurrent anterior vaginal wall prolapse while 7 patients had recurrent posterior wall prolapse. However, using PFDI-20 to assess the feeling of a bulge for recurrent patients, no one felt a bulge in the vaginal area.

Conclusion: POP patients receiving LSC showed significant improvement in anatomical outcome. Rate of recurrence in first year after LSC was about 5%.

**IPD16:
EFFECTIVENESS OF NO-CGMP AXIS FOR LOWER URINARY TRACT SYNDROME**

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Purpose: It is well known NO-cGMP axis plays a critical role in treatment for erectile dysfunction. NO-cGMP axis is expected to not only ED but also LUTS treatment due to regulate the smooth muscle relaxation. Zalutia[®] is one of the PDE5 inhibitor launched in Japan on 2013 for LUTS treatment. We evaluated the effectiveness of Zalutia[®] for LUTS and ED treatment.

Material and Methods: Between October 2014 and December 2015, 108 patients were prescribed Zalutia[®] 5mg per day in Toho University Medical center Omori Hospital. Of 36 patients were clinically evaluable such as PSA level, prostate volume, IPSS (International prostate symptom score), flowmetry, EHS (erectile hardness score) and the diary of voiding.

Results: Effective rate for urinary symptoms, especially storage symptoms including nocturia, daytime frequency and urgency, was 53% and for ED was 76%. Medication discontinuance was noted 13 cases. 5 cases were due to no effective, 2 were due to appearance of a new symptom and 6 were due to side effect including hated erecting. Though there was no improvement of the urinary symptom, 5 patients wanted to continue the medication.

Conclusion: PDE5 inhibitor is safe and effective for LUTS treatment. PDE5 inhibitor gives an effect to erectile function supplementary and seems to help not only the urinary symptoms but also the men's health.

ISTUA Podium-4

General urology

**IPD17:
OPERATING TIMES AND CLINICAL OUTCOMES IN PERCUTANEOUS NEPHROLITHOTOMY: A COMPARISON OF TRACT DILATION METHODS**

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Purpose: The study investigated that two different tract dilatation method affect operating times and bleeding complications associated with percutaneous nephrolithotomy (PCNL) in the single-center study.

Materials and Methods: All patients who underwent PCNL for primary or secondary treatment of kidney stone indications during the study period (January, 2013 to August, 2015) were eligible for inclusion. PCNL procedures were performed according to local clinical guidelines and practices. Nephrostomy tract dilation was performed using balloon dilation or Amplatz serial dilation. Hematologic complications assessed included bleeding rates, transfusion rates, and preoperative and postoperative hemoglobin values. Hospital stay (days) and the stone free rate are also included into outcome parameters.

Results: The median operating time with balloon dilation ($n = 142$) was significantly shorter than Amplatz serial dilation ($n = 54$) at 88.0 vs 135.9 minutes, respectively ($P < 0.0001$). In the balloon dilation group, there was

significantly less of drop in hemoglobin (1.3 vs 2.0 g/dL, respectively; $P < 0.0001$) and shorter hospital stay (6.93 vs 7.89 days, respectively, $P = 0.047$). Transfusions rate in balloon dilation group has no significantly difference compared with the Amplatz serial dilator group (15.4% vs 20.3%, respectively; $P = 0.418$). Univariate analysis revealed the use of balloon dilation has shorter operating time, less of drop in hemoglobin level and less hospital stay. By multivariate analysis, the use of balloon dilator reduce 43% bleeding risk although not reached statistical significance (Odds ratio [OR] 0.57; $P = 0.121$). Other significant predictive factors included operating time, and stone burden.

Conclusion: This study shows that in PCNL, the use of balloon dilator has shorter operating time. Factors that are associated with bleeding/transfusion include operating time and stone burden.

IPD18:

PERCUTANEOUS NEPHROLITHOTOMY FOR RENAL STONES INCREASE THE RISK OF DEVELOPING HYPERTENSION IN CHINESE/TAIWANESE POPULATION

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Purpose: Percutaneous nephrolithotomy (PCNL) is a minimally-invasive procedure to remove stones from the renal pelvis by a small puncture wound through the skin. Some common complications include hemorrhage during the operation, and post operation infection were reported. Other uncommon complications such as hemothorax or hydrothorax were also noticed. However, long-term follow up data were seldom reported. The association between PCNL and development of new hypertension has never been reported before. We aimed to determine whether the PCNL increased the development of hypertension with controls matched for age, gender, obesity, diabetes mellitus and hyperlipidemia by using the Taiwan National Health Insurance (NHI) database.

Materials and Methods: Data sourced from the “Longitudinal Health Insurance Database” (LHID200) of our country (Taiwan, Republic of China) compiled by the NHI from 1996 to 2010. The LHID200 include medical records for 1,000,000 individuals randomly sampled from all enrollers in NHI. Cases of renal stones were defined by the ICD-9 diagnostic codes as 592. Patients with newly onset of hypertension was defined as ICD-9 diagnostic codes 401 to 405 with hypertension medication. For the study group, we only include the renal stone patients underwent PCNL (procedure code 76016B), patients with diagnosis of renal stone who underwent either shock wave lithotripsy (SWL; procedure code: 50023B) or ureterorenoscopic lithotripsy (URSL; procedure code: 77026B, 77027B, 77028B) were precluded in our cohort. For control group, we included the patients with renal stones diagnosed but did not receive the SWL, PCNL and URSL. The Kaplan-Meier analysis was applied to estimate the effect of PCNL on hypertension free rates.

Results: We included 232 patients with PCNL and 1,160 patients with comparison. There were no difference in age, gender, urbanization, monthly income, and co-morbidities between the two groups. Patients underwent PCNL showed greater incidence with a hazard ration of 1.48 (95% CI: 1.13–1.95) for newly hypertension compared to the control group. The incidence rate of newly hypertension during the follow up period was 44.5 per 1,000 person-years.

Conclusion: On the basis of our results, PCNL may increase the risk of developing hypertension in Taiwan NHI database.

IPD19:

THE CLINICAL EFFICACY OF RECTAL SWAB CULTURE BEFORE TRANSRECTAL ULTRASOUND GUIDED PROSTATE BIOPSY FOR PREVENTING INFECTIVE COMPLICATIONS AND CHARACTERISTICS OF QUINOLONE RESISTANT *ESCHERICHIA COLI* ISOLATED FROM THE RECTAL SWAB

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Purpose: Transrectal ultrasound guided (TRUS) prostate biopsy is performed for the detection of prostate cancer. Fluoroquinolone has been used as the primary prophylactic agent before biopsy worldwide. However, not negligible number of cases with severe infectious complications caused by fluoroquinolone resistant *Escherichia coli* (QREC) have been reported recently. We evaluated the outcome of our regimen by targeted prophylaxis using rectal swab culture and investigated characteristics of clinical isolated QREC.

Materials and Methods: This study was done from June 2013 to December 2014. The swabs were cultured on agar plate containing 2 µg/ml levofloxacin and one containing 1 µg/ml sitafloxacin before TRUS guided prostate biopsy. Patients with susceptible organisms received levofloxacin or sitafloxacin while those with resistant organisms received directed antimicrobial prophylaxis according to the results of antimicrobial susceptibility test. All of QREC were susceptible to amikacin and meropenem. We identified the patients with infectious complications after TRUS guided prostate biopsy and backgrounds of QREC carriers from medical reports.

Results: A total of 397 men underwent TRUS guided prostate biopsy. Median age was 69 year-old, median serum PSA levels 7.4 ng/ml, median prostate volume 37.7 ml, respectively. Seventy four (18.6%) patients had QREC. All of QREC were susceptible to amikacin and meropenem. The risk factors of possible QREC were comorbidity with diabetes mellitus and hospitalization within prior 12 months. Three (0.7%) patients of 390 patients received appropriate antimicrobial prophylaxis showed high grade fever after TRUS guided prostate biopsy. However, the pathogens were not QREC.

Conclusion: Targeted antimicrobial prophylaxis could be associated with reducing severe infectious complications caused by QREC. When the patients having potential risk factors being QREC carrier undergo biopsy, rectal swab culture and modified antimicrobial prophylaxis should be considered.

IPD20:

MISUSE OF DETECTION METHODS MAY ASSOCIATED TO INCREASED RESISTANCE OF GONOCOCCAL INFECTION: EXPERIENCES FROM A NORTHERN TAIWAN INSTITUTE

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Purpose: To examine the detection rate of the routine urine culture and genital discharge swab culture for the detection gonococcal urethritis in male patients. In addition, we evaluated the results of urinalysis for gonococcal infection and investigated the drug sensitivity of *Neisseria gonorrhoeae* strains isolated from these patients.

Materials and Methods: From August 2009 to October 2015, 202 males diagnosed with gonococcal infection, based on the results of urine culture or genital discharge swab culture, were enrolled in this study. Initial clinical symptoms and urinalysis results were collected. The susceptibility of *N. gonorrhoeae* to penicillin, cefmetazole, cefotaxime, ceftazidime, cefuroxime, ceftriaxone and ofloxacin were determined using agar plate dilution method.

Results: The mean age of the patients was 29.67 ± 10.39 year, and 157 of the 202 male patients (87.6%) were aged between 15 and 34 years. We determined that the diagnostic value of genital discharge swab culture was significantly higher than that of the urine culture (90.9% vs 67.4%,