

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

Tsu-Ming Chien<sup>1</sup>, Yen-Man Lu<sup>1</sup>, Yii-Her Chou<sup>1,2</sup>, Chun-Nung Huang<sup>1,2</sup>. <sup>1</sup>Division of Urology, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan; <sup>2</sup>School of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan

**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

Yoshiki Hiyama<sup>1</sup>, Satoshi Takahashi<sup>2</sup>, Teruhisa Uehara<sup>3</sup>, Koji Ichihara<sup>1</sup>, Jiro Hashimoto<sup>4</sup>, Masahiro Yanase<sup>5</sup>, Keisuke Taguchi<sup>6</sup>, Takaoki Hirose<sup>7</sup>, Masanori Matsukawa<sup>8</sup>, Yasuharu Kunishima<sup>9</sup>, Hiroshi Hotta<sup>10</sup>, Noki Ito<sup>4</sup>, Koh Takeyama<sup>11</sup>, Hitoshi

Tachiki<sup>12</sup>, Naoya Masumori<sup>1</sup>. <sup>1</sup>Department of Urology, School of Medicine, Sapporo Medical University, Japan; <sup>2</sup>Department of Infection Control and Laboratory Medicine, School of Medicine, Sapporo Medical University, Japan; <sup>3</sup>Division of Urology, Muroran City General Hospital, Japan; <sup>4</sup>Division of Urology, NTT East Sapporo Hospital, Japan; <sup>5</sup>Division of Urology, Sunagawa City Medical Center, Japan; <sup>6</sup>Division of Urology, Oji General Hospital, Japan; <sup>7</sup>Division of Urology, Japan Community Health Care Organization Hokkaido Hospital, Japan; <sup>8</sup>Division of Urology, Takikawa Municipal Hospital, Japan; <sup>9</sup>Division of Urology, National Hospital Organization Hokkaido Medical Center, Japan; <sup>10</sup>Division of Urology, Japanese Red Cross Asahiwa Hospital, Japan; <sup>11</sup>Division of Urology, Hakodate National Hospital, Japan; <sup>12</sup>Division of Urology, Steel Memorial Muroran Hospital, Japan

**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

Yu-Hua Lin<sup>1</sup>, Hsu-Che Huang<sup>1</sup>, Bing-Jun Jiang<sup>1</sup>, Chun-Hou Liao<sup>1</sup>. <sup>1</sup>Division of Urology, Department of Surgery, Cardinal Tien Hospital, New Taipei City, Taiwan

**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%,