

The experiments were performed on day 7. We conducted a strategy involving: (1) Continuous infusion cystometry (CMG) under anaesthesia to record the basal pressure, threshold pressure, maximum bladder voiding pressure (MBVP) and intercontraction interval (ICI). (2) Urinary nerve growth factor (NGF) detection before CMG. (3) Western blot analysis and immunohistochemistry of CLC-3 and CLCA4 protein on rat bladder tissues. (4) Reverse transcription-polymerase chain reaction (RT-PCR) of the mRNA for CLC-3 and CLCA4 channels in normal and CYP-OAB bladder tissue. The CMG parameters, urine NGF level, molecular expressions of chloride channels are compared between rats in control, CYPc40 and CYPc80 groups.

**Results:** Repeated injection of low dose CYP (40 or 80 mg/kg) could successfully induce OAB like status in rats which was illustrated by CMG. In CYPc80 group, the bladder weight and urinary NGF increased significantly. In OAB rats (CYPc40 and CYPc80), the protein expressions of CLC-3 and CLCA4 chloride channels on bladder tissue (by western blotting) increased significantly in a dose dependent manner. The mRNA expression of CLC-3 and CLCA4 on bladder tissue (by Quantitative RT-PCR) also increased significantly in a dose dependent manner in OAB groups. Immunohistochemistry study revealed the CLC-3 and CLCA4 were located on both urothelium and smooth muscle layers of CYP-induced OAB bladder in rats. Moreover, the expression of CLC-3 and CLCA4 (both in protein and mRNA level) chloride channels on OAB rat bladder were strongly correlated with the NGF levels and CMG parameters.

**Conclusion:** Our results suggest that both the CLC-3 and CLCA4 chloride channels may play important roles in the pathogenesis of OAB and provide possible new therapeutic targets in treating OAB. Further studies are warranted.

**PD10-5:  
IMPACT OF SURGEON CASE VOLUME ON POSTOPERATIVE COMPLICATIONS, MORTALITY, MEDICAL COSTS AND LENGTH OF HOSPITAL STAY AFTER TRANSURETHRAL RESECTION OF THE PROSTATE (TURP): A NATIONWIDE POPULATION-BASED STUDY IN TAIWAN**

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**Purpose:** There were numerous volume-outcome studies during the previous decade indicating that high surgeon case volume provides better outcome in high risk operations. Conversely, surgeon case volume may play little role in some well-established operations, such as transurethral resection of the prostate (TURP), the standard surgical procedure for benign prostate hyperplasia (BPH) since 1920s. We investigate the impact of surgeon case volume on in-hospital mortality, postoperative complications, blood transfusion rate, length of hospital stay and medical expense in TURP.

**Materials and Methods:** This study used data from the National Health Insurance Research Database (NHIRD), which is provided by the Bureau of National Health Insurance in Taiwan. The study sample will be identified from the database by ICD-9-CM code from 2002 to 2012. The sample of 3381 patients who had undergone TURP for the first time was divided into low (estimated 33 cases per year or less), medium (estimated 33 to 51 cases per year) and high-volume (estimated 52 or more cases per year) surgeon groups equally. The correlations of all patient, surgeon and hospital variables with the outcomes and medical expense of TURP were analyzed.

**Results:** A total of 3381 patients underwent TURP for the first time by 430 surgeons in 185 hospitals from 2002 to 2012. The overall in-hospital mortality rate was 0.18% (6 of 3381 patients) and was not significantly different among groups. The blood transfusion rates of the low, medium and high volume surgeon group were 0.35%, 0.53%, and 0.44%, respectively ( $p = 0.815$ ), and postoperative complication rates were 1.16%, 0.98% and 1.08% respectively ( $p = 0.932$ ). However, TURP performed by high-volume surgeons cost 6.2% less (\$1186 vs \$1265,  $p = 0.0004$ ) and resulted in shorter hospital stay (4.58 vs 5.11 days,  $p < 0.0001$ ) compared with low-volume surgeons.

**Conclusion:** According to preliminary results, surgeon volume was associated with lower medical costs and shorter hospital stay after TURP. Surgeon volume, however, was not an independent predictor of mortality, blood transfusion rates and postoperative complication rates.

**PD10-6:  
THE IMPACT OF PSEUDOEPHEDRINE AND ANTIHISTAMINE ON MALE LOWER URINARY TRACT SYMPTOMS**

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**Purpose:** Pseudoephedrine and antihistamine are sympathomimetic drugs that are widely used as nasal decongestants, but both of them can also cause adverse effects including voiding dysfunction. However, the risk of developing voiding dysfunction remains uncertain in patients without subjective voiding problems.

**Materials and Methods:** We prospectively enrolled patients with nasal congestion who required treatment with pseudoephedrine in the period from August to December 2015. All of the patients denied concomitant subjective voiding problem. International prostate symptom score (IPSS) questionnaires were used to evaluate voiding function before and one week after pseudoephedrine was taken. The results of IPSS questionnaires were analyzed as a total score (IPSS-T), voiding score (IPSS-V), storage score (IPSS-S), and quality of life due to urinary symptoms (QoL-US).

**Results:** We enrolled a total of 94 male patients, with pseudoephedrine group and antihistamine group accounted for 47 patients respectively. Mean age of each groups were 38.9 and 42.9 y/o in pseudoephedrine and antihistamine respectively. The mean age, initial IPSS-T, IPSS-V, and IPSS-S score of both group showed no significant difference. The IPSS-T, IPSS-V, and IPSS-S scores increased slightly after pseudoephedrine was taken (IPSS-T from 5.47 to 5.96, IPSS-V from 2.83 to 3.19, and IPSS-S from 2.68 to 2.77), while all change showed no significant difference. In antihistamine group, the score changed were as followed: IPSS-T from 6.00 to 6.66, IPSS-V from 2.30 to 2.96, and IPSS-S from 3.70 to 3.74. In this group, the IPSS-V score increased significantly after taking antihistamine ( $p$  value = 0.015). The urinary symptom related quality of life of both groups did not differ significantly after taking pseudoephedrine and antihistamine.

**Conclusion:** Comparing to pseudoephedrine, antihistamine treatment for nasal congestion may increase the risk of voiding dysfunction in those without subjective voiding symptoms.

**Podium-11  
Urinary tract infection**

**PD11-1:  
EARLY SURGICAL INTERVENTION WITHIN 15 HOURS RESULTS IN SURVIVAL BENEFIT IN PATIENTS WITH FOURNIER'S GANGRENE**

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**Purpose:** Fournier's gangrene (FG) is a life-threatening disease and the reported mortality rates range from 7.5 to 45%. Given the high mortality rate in those patients, emergent surgical intervention is always needed. To date, only a handful of the studies explored the effect of intervention time on disease survival. The aim of this study is to determine the optimal time for surgical intervention, which might provide better prognosis.

**Materials and Methods:** From 1979 to 2015, a total of 95 patients diagnosed as FG in National Cheng Kung University Hospital were retrospectively reviewed. Patients' demographics, laboratory parameters at initial diagnosis, Fournier's gangrene severity index (FGSI) and simplified FGSI, time interval between the time of arriving emergency room (ER) and the time of starting surgery were recorded. All of the patients received aggressive surgical intervention. The patients were divided into survival