POD-03
Zero hospital admissions for infection after 608 consecutive transperineal prostate biopsies: quinolone prophylaxis is not required
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Introduction: Prostate biopsy is commonly performed via the transrectal route (TRUS biopsy). However, recent reports suggest increasing rates of septic complication from this procedure. In addition, the emergence of resistant bacteria raises concerns about the difficulty in managing such infections in the future. Transperineal prostate biopsy (TPB) is thought to be the ‘cleaner’ alternative to TRUS biopsy. The objective of this study was to determine the sepsis rate after TPB using prospective data. We also aimed to evaluate the choice of prophylactic antibiotic usage in this cohort.

Materials and Methods: Between May 2012 and March 2015, data was prospectively collected from consecutive patients who underwent TPB by the Australian Urology Associates (AUA) group of urologists. The same urologists followed up all their patients, and every complication was recorded in a database. Details analysed were age, PSA level, prostate volume, indication for TPB, number of prostate cores taken, type of prophylactic antibiotics administered, and complications from TPB.

Results: A total of 608 patients had TPB in the study period. Most (47.0%) of them were having their first prostate biopsy in the form of TPB. There were 38 (6.3%) complications from TPB. There was no hospital readmission for sepsis. The commonest prophylaxis was with a single shot of intravenous cephaloxin (63.3%) given on induction of general anaesthesia.

Conclusion: Septic complication from TPB is very rare. There was a trend towards using just a single dose of cephaloxin as the prophylactic antibiotic, which did not result in any cases of readmission for infection.

POD-04
Concordance of Gleason score: transperineal template prostate biopsy versus radical prostatectomy specimens
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Objective: To evaluate the concordance of Gleason score between transperineal template prostate biopsy (TPTPB) and radical prostatectomy (RP) specimens.

Materials and Methods: A retrospective study was done from May 2010 to May 2014. 229 patients underwent 36-core TPTPB in Leicester General Hospital, United Kingdom. Patients’ clinical data, cores from TPTPB and RP specimens were reviewed. Pearson Chi square statistical test was used for the analysis of Gleason score concordance with age, PSA, prostate volume, PSA density and length of time (months) from TPTPB to RP.

Results: 229 patients with mean age of 63 years (range: 43–73) underwent TPTPB. 131 men (57%) had malignant findings with Gleason score of 6 in 41 (31%), 7 in 82 (63%) and >7 in 8 (6%). More anterior zone tumours (51%) were detected compared to middle (28%) and posterior (21%) zones from all positive detected by TPTPB. Of all the patients with cancer; 22 men (17%) underwent RP. Comparing the Gleason scores of RP and TPTPB specimens, RP Gleason score was concordant in 16 (73%), upgraded in 4 (18%), and downgraded in 2 (9%). Concordance was not affected by age, PSA, prostate volume, prostate density or length of time (months) from TPTPB to RP.

Conclusion: TPTPB Gleason score was found to be concordant with RP Gleason score in the majority of patients who underwent RP.

POD-05
Observation of intact urothelial barrier function in a mouse model of ketamine induced voiding dysfunction
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Introduction: Ketamine is a popular choice for young drug abusers, and it can cause ketamine cystitis and voiding dysfunction. The underneath pathophysiology for ketamine cystitis is poorly understood. Preventing the development of rational treatment strategies is challenging. Disruption of urothelial barrier function had been suggested previously in both human patients and animal models, which was hypothesized to be a major mechanism of ketamine cystitis. The direct evaluation of urothelial barrier function in ketamine cystitis is still lacking3,4, and whether the disruption of urothelial barrier function is the cause of ketamine cystitis or it is the consequence of ketamine cystitis is unknown.

Materials and Methods: 8-week old C57BL/6 female mice were injected intraperitoneally with 30 mg/kg/day ketamine for 12 weeks to induce ketamine cystitis. To evaluate urinary function, spontaneous voiding spot assays were performed weekly, and cystometrograms (CMGs) were performed after 12 weeks’ ketamine injection. Measurement of urothelial permeability was performed in an Ussing chamber system with isotope labelled urea and water. Transmission and scanning electron microscopy (TEM and SEM) were used to examine the effect of ketamine on urothelial cell (UC) structure, which was further evaluated by immunofluorescent staining and confocal microscopy imaging of the UC specific protein uroplakin and tight junction protein ZO-1.

Results: Ketamine treated mice had more void spots, smaller primary void sizes and lower volumes than control mice (P < 0.05), indicating bladder overactivity and reduced voiding size in ketamine treated mice. Likewise, ketamine-treated mice exhibited significantly increased voiding contraction frequency on CMG under anesthesia. These functional studies confirm that ketamine induces voiding dysfunction in mice. Surprisingly, neither the mice urothelial bladder permeability was changed in our study, nor the mice urothelial structure was altered, and intact umbrella cell structure was observed by TEM and SEM, which was further confirmed by well-defined distribution of ZO-
1 in the tight junctions and uroplakin in
the apical membrane of umbrella cells.

**Conclusion:** Ketamine injection induces
voiding dysfunction in mice. Ketamine
injection does not necessary disrupt mice
bladder barrier function. Disruption of
urothelial barrier function might not be
the major mechanism in ketamine cystitis.

**References**
1. Dillon, P., Copeland, J. & Jansen, K.
   2003. Patterns of use and harms associated
   with non-medical ketamine use. *Drug
   Alcohol Depend*, 69, 23–8.
2. Muetszelfeldt, L., Kamboj, S. K., Rees,
   H., Taylor, J., Morgan, C. J. & Curran, H.
   V. 2008. Journey through the K-hole: phe-
   nomenological aspects of ketamine use.
3. Chu, P. S., Ma, W. K., Wong, S. C.,
   Chu, R. W., Cheng, C. H., Wong, S., Tse,
   J. M., Lau, F. L., Yiu, M. K. & Man, C. W.
   2008. The destruction of the lower urinary
   tract by ketamine abuse: a new syndrome?
   *BJU Int*, 102, 1616–22.
4. Ho, C. C., Pezhman, H., Praveen, S.,
   Goh, E. H., Lee, B. C., Zulkifi, M. Z. &
   Isa, M. R. 2010. Ketamine-associated
   ulcerative cystitis: a case report and litera-

**POD-06**
**Pulsed magnetic stimulation for stress urinary incontinence: a randomized, sham-controlled study**

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**Introduction and Objective:** Stress urina-
ry incontinence (SUI) is a common problem
which affects the physical, psychol-
ogical, social and economic well-being
of patients and their families. Surgical
interventions such as mid-urethral slings
have unquestionably superior cure rates of
approximately 90%, compared with 30%
in pelvic floor muscle training. However,
when given options, most patients will not
choose surgical treatments. It is imperative
to take into consideration both the
patients’ preferences and health condition,
and the surgeons’ judgment instead of
focusing on cure or improvement rates
exclusively. There is a distinct gap in suc-
cess rates between surgical and non-surgi-
cal treatments for stress urinary
incontinence, thus restricting patients’
options. We conducted a multicenter, ran-
donized, double-blind, sham-controlled
trial to evaluate the efficacy of magnetic
stimulation (MS) for SUI.

**Materials and Methods:** This study (Clin-
icalTrials.gov Identifier: NCT01924728)
was undertaken in the participating hospi-
tals in Penang, Malaysia. Subjects were
assigned in a 1:1 allocation to either the active or sham MS group using a com-
puter-generated, permuted block random-
ization with variable block sizes. Eligible
subjects were female aged 21 years and
above, demonstrated urine leak on cough-
 ing, had International Consultation on
Incontinence Questionnaire for Urinary
Incontinence-Short Form (ICIQ-UI SF)
score of at least 6 points, were able to
carry out 1-h pad test and had no signi-
cant co-morbidities. The device utilized
was the QRS-1010 PelviCenter (QRS Inter-
national, Ruggell, Liechtenstein) which
uses electromagnetic pulsing for pelvic
floor muscle stimulation. The treatment plan
involved 2 sessions per week for
8 weeks (total 16 sessions) of 20 min each.
The primary criterion for response was a
reduction of 5 points or more in the
ICIQ-UI SF. The secondary outcomes
included objective (length of <1 g on 1-h
pad test) and subjective cure (a ‘never’
response to ‘How often do you leak
urine’), incontinence diary, pelvic floor
muscle strength, uroflowmetry and quality of
life questionnaires.

**Results:** From September 2013 to Febru-
ary 2015, 168 patients were screened to
enroll 120 patients. The two treatment
groups appeared homogenous in nature
in terms of baseline demographic charac-
teristics and outcome measures. Using the
primary criterion, 45 (75.0%) of 60 sub-
jects were treatment responders in the
active group compared to 13 (21.7%) of
60 subjects in the sham group (relative
risk (RR) 3.46, 95% CI 2.09–5.72,
P < 0.001). Based on objective cure, 25
(41.7%) subjects in the active group were
dry versus 4 (6.7%) subjects in the sham
group (RR 6.25, 95% CI 2.32–16.87,
P < 0.001). 19 (31.7%) in the active
group and 3 (5%) subjects in the sham
group perceived themselves as dry (RR
6.33, 95% CI 1.98–20.28, P < 0.001).
Changes in pelvic floor muscle para-
ters were not statistically significant
between groups (P > 0.05). Changes in
incontinence frequency and Patient Glo-
bal Impression of Improvement were sta-
tistically significantly larger in the active
group (P < 0.05). 26 (46%) active and 38
(66%) sham patients thought that they
received active MS, while 28 (49%) active
and 16 (28%) sham patients responded
don’t know (P = 0.06, chi-square test).
Assessment of blinding indicated that our
blinding technique was successful. Of all
evaluable subjects, 3 (5.3%) of 57 subjects
in the active group and 5 (8.6%) of 58
subjects in the sham group experienced
adverse events. All uroflowmetry para-
ters including post void residual were not
significantly different between the two
treatment groups (P > 0.05).

**Conclusion:** In summary, subjects in the
active MS group were 3.5 times more likely
to improve compared with sham MS group.
They were also 6 times more likely to be
objectively dry or perceived themselves as
dry compared with the sham group. These
results were more encouraging than results
of other non-surgical interventions. A
course of 16 sessions benefited a substantial
proportion of patients. MS is a safe and
effective treatment option for SUI.

**POD-07**
**Prevalence of premature ejaculation in the Malaysian population**

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**Introduction and Objective:** Premature ejaculation (PE) is a common sexual dys-
function but less than half of the patients
self-report PE. Previous study in the Asia-
Pacific region has found that, using a Pre-
mature Diagnostic Tool (PDT), 16% of
subjects had PE and 15% had probable
PE. The objective of our study was to
determine the prevalence of PE in a Malaysian
population

**Material and Methods:** Male spouses and
partners of patients attending an obstetrics
and gynaecological clinic who were Malay-
sian nationals from June to September
2014 were recruited. The subjects were
given a PDT in three different languages
(i.e., English, Malay and Chinese) accord-
ing to their preference. They were required
to answer 5 questions for which the
answers were given a score of 0–4. The
total score was then calculated and cate-
gorised into: 0–8: no PE, 9–10: probable
PE and 11–20: PE.