Title	**Predictive factors for extracorporeal shockwave lithotripsy success in ureteric stones, does skin-stone distance and hounsfield unit matter?**
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1

Predictive factors for extracorporeal shockwave lithotripsy success in ureteric stones, does skin-stone distance and hounsfield unit matter?

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Objective: To evaluate the usefulness of measuring stone skin distance and stone attenuation values by non-contrast computed tomography for predicting treatment outcome of ureteric stones by extracorporeal shockwave lithotripsy (ESWL).
Patient and Method: Retrospective review of 66 patients who underwent ESWL for ureteric stones with pre-ESWL NCCT in 2010–2012. Subjects were stratified into 2 groups, successful ESWL and failed ESWL, with ESWL success defined as stone fragment less than 4 mm at 6 weeks after ESWL. Patient age, sex, stone size, stone location, laterality, shockwave energy, number of shockwave administered, Hounsfield unit (HU), skin to stone distance (SSD), presence of hydronephrosis, pre-ESWL JJ stent or PCN were studied as predictive factors.
Results: Patient demographics and stone characteristics were similar between the 2 groups. On univariate analysis, the mean stone size for successful ESWL was 7.9 mm compared with 10.2 mm in the failure group (P = 0.02). For the skin-stone distance, the mean distance for the successful group was 95 mm compared with 104 mm in the failure group (P = 0.04). Concerning the Hounsfield Unit, a mean of 1034 HU was found in the successful compared with 1129 HU in the failure group (P = 0.16)
Conclusion: Skin to stone distance on non-contrast CT scan is a useful predictive factors for ESWL success for ureteric stones.

2

Early experience on Nickel-Titanium alloy stent (Niti-S) in patients with malignant ureteric obstruction

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Objective: The objective of this study is to evaluate our initial results on using fully-covered, self-expanding Nickel-Titanium alloy stents (Niti-S) in patients with malignant ureteric obstruction.
Patients and Method: From May 2011 to May 2012, three patients with malignant ureteric obstruction underwent insertion of Niti-S stent as treatment. Their pre-operative condition, operative time and post-operative outcomes were reported and analyzed.
Results: Two patients successfully weaned off double-J (JJ) stent or percutaneous nephrostomy (PCN) after the insertion of Niti-S ureteric stent. One patient had severe ureteric obstruction in which the insertion of the first Niti-S stent was not able to achieve ureteric patency. She underwent another Niti-S stent insertion (stent-on-stent), and was then able to wean off the PCN afterwards. The mean ureteric stricture length was 5 cm, and the average operating time was 45 minutes. The median hospital stay was 3 days, and these patients had minimal loin discomfort and irritative urinary symptoms.
Conclusion: The early results of applying Niti-S stents in patients with malignant ureteric obstruction are satisfactory. However, more patients and longer follow-ups are required to observe the long-term outcome of this new treatment modality.

3

A prospective study on the effect of pre-operative one-week dose of oral antibiotics on the rate of systemic inflammatory response syndrome (SIRS) after percutaneous nephrolithotripsy (PCNL)

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Objective: A historical cohort studied by us has shown a high incidence of post-PCNL SIRS in patients receiving single dose prophylactic antibiotics. Augmentin was the most susceptible antibiotics. This study aims to investigate the effect of one-week dose antibiotics on the incidence of SIRS after PCNL.
Methods: A prospective cohort study was performed in all patients scheduled for their first PCNL since September 2011. All patients were given a one week course of oral antibiotics, with the majority receiving Augmentin (84%). The incidence of SIRS and its contributing factors were studied. Data was compared with a historical cohort of 69 patients (Control) with their first PCNL performed from May 2007 to April 2011.
Results: The incidence of SIRS in Study group (n = 38) was 52.6%, which was similar to that in the Control group (58.0%) (p = 0.594). However, in terms fever incidence, the rate was 59.4% versus 39.5% (Control) (p = 0.048). The mean fever duration was also reduced from 21.7 to 12.5 hr (Control) (p = 0.038). Only stone size was associated with SIRS (p = 0.019).
Conclusion: The incidence of SIRS is still common despite one week oral antibiotics. However, such intervention has led to a decline in the constituting factors of SIRS, namely fever incidence.

4

Recurrent laryngeal nerve neuraprexia after open radical nephrectomy

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Objective: We report a rare case of postoperative stridor and repeated failure of extubation after open radical nephrectomy.
Patient and Method: A 62-year-old woman had an 8 cm locally advanced right renal cell carcinoma with renal vein thrombosis. She underwent an open radical nephrectomy at lateral position with loin approach but developed persistent stridor shortly after extubation.
Result: The patient was reintubated due to persistent stridor and desaturation despite trials of bronchodilators, diuretics and sedation to relieve potential bronchoconstriction and laryngeal edema.

Her hemodynamics and saturation were stable after reintubation. Laryngeal examination by anesthetist and intensivist showed mobile vocal cords and no laryngeal edema. Patient's respiratory symptoms were likely secondary to recurrent laryngeal nerve neuraprexia as a result of nerve stretching caused by extreme position of the neck during nephrectomy. Repeated trials of extubation failed until postoperative day 9, when she succeeded in extubation with an uneventful recovery.
Conclusion: Recurrent laryngeal nerve neuraprexia is rare but can be life threatening. High index of suspicions should be raised if patient developed stridor after operation. It can be prevented by close collaboration with anesthetist in positioning of the patient with proper neck support.

5
Carrot-pork model for training of transurethral resection of prostate (TURP) in Hong Kong

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Objective: To describe the design the carrot-pork model and summarize the feedbacks from urological trainees
Method: The carrot-pork model was designed by the urology team in PYNEH. The central part of carrot was removed to act as the prostatic capsule. The pork was rolled inside the carrot and anchored by sutures which served as prostatic adenoma. The model was placed in a transparent plastic box which was filled by normal saline. A laparoscopic port connected via plastic water pipe to the box simulating as the urethra. The connection site was cemented to prevent fluid leakage. A recycle water pump was set up to ensure fluid circulation for bipolar resection. Feedback from trainees was collected after the course to review the quality and educational value of the model.
Results: The feedbacks showed that the tactile sensation was fair (60%) or good (40%) to facilitate the resection in different depth. 80% of trainees agreed that the texture of pork resected was similar in prostatic chips in TURP. 60% of trainees agreed that the vision were fair or good. 80% of trainees agreed that it could help to increase their performance if they were not trained in real patients before.
Conclusions: The carrot-pork model is cost-effective compared to computer commercial model. It is easily reproducible. It provides hand-on training without jeopardizing safety of patients.

6
Outcome of hand-assisted Laparoscopic Living Donor Nephrectomies (HaLDNs) in a regional transplant center in Hong Kong

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Objective: HaLDNs are increasingly being performed to improve donor outcomes without jeopardizing allograft function in the recipient. We report our initial experience with HaLDN compared with standard open methods.
Patients and Methods: From May 2005 to May 2012, operative records and case notes of all LDN were retrospectively studied and reviewed. Comparison was made between HaLDNs and open LDNs.
Results: Eight HaLDNs and seven open LDNs were performed over the period. The mean operating time was similar (240 [135–290]min in HaLDNs vs 162 [120–210] min in open LDNs, $p = 0.97$). The mean first warm ischaemic time was 4.6 [2–8] min vs 2.3 [1–5] min respectively ($p = 0.31$). Postoperatively, HaLDN donors returned to normal diet by a mean of 3.9 [3–5] days (vs 3.8 [3–5] days in open LDNs) and required analgesia for 66 [14–105] hours (vs 98 [11–175] hours in open LDNs). Hospital stay was significantly shorter for donors receiving HaLDNs (4.8 ± 0.7 days vs 5.9 ±1.6 days, $p = 0.02$), without significant complications. All allografts had immediate function, and reached nadir serum creatinine level in a mean of 5.0 [2–8] days (HaLDNs) vs 11.4 [4–30] days (open LDNs).
Conclusion: HaLDN is safe, feasible and can be performed with minimal morbidity, while enabling excellent allograft function.

7
The accuracy of prostate biopsy and magnetic resonance imaging in predicting the laterality of prostate cancer: how wrong can it go?

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Objective: To determine the accuracy of transrectal ultrasound guided prostate biopsy (PBx), magnetic resonance imaging (MRI), and their combination in predicting the laterality of cancer involvement in the prostatectomy specimen.
Patients and Methods: We reviewed our past 100 consecutive cases of radical prostatectomy performed from February 2010 to April 2012. Prostatic needle biopsies performed at our hospital and elsewhere with retrievable pathology report were included for analysis. MRI scans performed at our hospital with Siemens Magnetom Avanto 1.5-Tesla pelvic phased-array body-coil system were included for analysis. The concordance between final pathology and PBx, MRI, or their combination was evaluated by Cohen Kappa.
Results: 94 PBx and 56 MRI scans were included for analysis. 77 out of the 94 patients had bilateral diseases in the prostatectomy specimens. The accuracies in localising unilateral diseases for PBx, MRI and their combination were 15.2%, 11.1% and 16.7% respectively. The positive predictive values of bilateral disease for PBx, MRI and their combination were 91.4%, 66.7% and 75%. The overall accuracies for PBx, MRI and their combination in localising unilateral or bilateral diseases were 43.6%, 38.9% and 55.6%. The Cohen Kappa of PBx, MRI and their combination were 0.1165, –0.2047 and –0.1084.
Conclusion: Majority of our prostatectomy specimens revealed bilateral diseases. The combination of PBx and MRI was able to improve the overall accuracy in localising unilateral or bilateral diseases. Notwithstanding, in patients with apparently unilateral diseases, PBx, MRI, or their combination had limited ability to exclude contralateral tumour involvement. When planning for nerve-sparing radical prostatectomy, urologists should recognise the ability and limitations of each investigative modality in tumour localisation.

8

Pre-operative prediction of extra-capsular extension in localised prostate cancer: our experience in 100 consecutive cases of radical prostatectomy

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Objective: To determine the value of magnetic resonance imaging (MRI) and Partin Tables in predicting extra-capsular extension (ECE) in the prostatectomy specimen.
Patients and Methods: We reviewed our past 100 consecutive cases of radical prostatectomy performed from February 2010 to April 2012. MRI scans performed at our hospital with Siemens Magnetom Avanto 1.5-Tesla pelvic phased-array body-coil system were included for analysis. The 2007 version of Partin Tables was used for pre-operative risk counseling. The estimated chance of ECE, represented in percentage (hereinafter referred as "Partin score") was used as a surrogate for comparison.
Results: The Partin scores were available in 97 patients. 56 MRI scans were included for analysis. 31 out of the 97 patients had ECE in the prostatectomy specimens. The positive predictive value, negative predictive value, sensitivity, specificity and overall accuracy for MRI in predicting ECE were 33.3%, 69.8%, 5.9%, 94.9% and 67.9% respectively. The mean Partin scores for cases with or without ECE were 31.58 and 24.06 respectively. Using a cut-off value of 25, the Partin score had positive predictive value, negative predictive value, sensitivity, specificity and overall accuracy of 42.9%, 82.9%, 77.4%, 51.5% and 59.8%.
Conclusion: MRI had a disappointingly low sensitivity in detecting ECE in our series. Using a cut-off value of 25%, the Partin Tables estimate of ECE had a modestly reasonable sensitivity and specificity. When considering radical prostatectomy, urologists should recognise the ability and limitations of each investigative parameter in predicting ECE.

9

Multi-disciplinary support for patients undergoing minimally invasive radical prostatectomy

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Objective: To introduce the Multi-disciplinary Support Service of Queen Elizabeth Hospital for patients with localised prostate cancer. To evaluate the general well-being of patients who underwent minimally invasive radical prostatectomy, and to determine the factors which significantly affect patients' general well-being.
Patients and Methods: Patients' well-being was assessed by the WHO-5 Well-being Index. Peri-operative parameters including continence, erectile dysfunction and biochemical recurrence were also assessed during each visit at 1st, 3rd, 6th, 9th, and 12th months post-operation. We performed a cross-sectional evaluation of all patients receiving this service.
Results: During the period between August 2010 and July 2012, 54 patients received this Service. 92% of the patients would recommend this service to the future patients-to-be. We recognised an initial deterioration in patients' general well-being until the 3rd month post-operation. Patients' sense of general well-being showed an improving trend starting from the 6th month and the improvement exceeded the pre-operative baseline starting from the 9th month post-operation. At 12th month post-operation, the mean WHO-5 score was significantly better than that of pre-operation ($p = 0.032$). We identified a dose-response relationship between continence and general well-being. This correlation reached a statistical significance at 3rd, 6th and 9th month post-operation ($p < 0.02$). Such correlation was not demonstrated with erectile dysfunction or biochemical recurrence.
Conclusion: Continence recovery seemed to have the greatest impact on patients' general well-being post-operatively. Patients with prostate cancer would face different forms of stress at different stages in their journey of cancer treatment, provision of a multi-disciplinary support service is paramount to address the multi-facetted need of our patients.

10

Results and side effect profile after one-year maintenance intravesical Bacillus Calmette-Gurein for non-muscle invasive bladder: experience from a urology centre in Hong Kong

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Objective: This study aims to review the results and side effect profile of intravesical BCG treatment after 1 year maintenance treatment by Connaught strain BCG in our hospital.
Patients and Methods: Patients who had started intravesical BCG treatment from July 2010 to August 2012 were reviewed. They were scheduled for 6 weekly induction and 3 weekly maintenance treatment for 1 year by 81 mg Connaught strain BCG. Demographic data, pre-treatment cancer risk assessment and the surveillance cystoscopy results were reviewed. Adverse effects of BCG were assessed after 1 year maintenance treatment by Common Terminology Criteria of Adverse event (NCI-CTCAE) version 3.0.
Results: 63 patients were included for review with the mean follow up 16 months (8–23 months). Patients had T1, Grade 3 and Cis in 34.9%, 43.1% and 28.6% respectively, with 95.2% and 81% intermediate risk for recurrence and progression respectively according to EORTC scoring system. 22% patient withdrawn from BCG treatment due to side effects of treatment. Pain on urination and Urinary frequency occurred in 77.8% of all patients. Cancer recurrence and progression occurred in 19% and 6% patients respectively after 1 year maintenance treatment. The results were comparable with the published results from EORTC.
Conclusion: Though treatment side effects were commonly seen after BCG treatment, our treatment results and side effect profile of BCG treatment were comparable to the results published in literature.

11
Retrospective review of homemade tension-free mid-urethral sling procedure in treating female patients with stress urinary incontinence

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Objective: To review the results of homemade tension-free mid-urethral sling procedure in treating female stress urinary incontinence.
Patients and Methods: Female patients with stress urinary incontinence who underwent homemade tension-free mid-urethral sling procedure in North District Hospital from year 2007 to 2011 were reviewed retrospectively. Patients' demographics, operative measures, post-operative complications and treatment outcomes were reviewed.
Results: From year 2007 to 2011, a total of 17 female patients underwent homemade tension-free mid-urethral sling procedure in North District Hospital. The mean age was 54.6 ± 6.7 years. 7 patients (41.2%) underwent the operation under spinal anesthesia, and 10 patients (58.8%) underwent the operation under general anesthesia. The mean operative time was 61.8 ± 15.1 minutes. The mean duration of catheterization was 3.94 ± 3.94 days. The mean hospital stay was 4.35 ± 2.64 days. One patient (5.9%) was noted to have bladder injury intra-operatively and was managed accordingly. One patient (5.9%) was noted to have large post-void residual urine after removing Foley catheter post-operatively and required clean, intermittent self-catheterization (CISC). None of the patients developed hematoma, wound infection, urinary tract infection or mesh erosion post-operatively. At 1 year, 2 years and 3 years after the operation, 94.1%, 92.9% and 88.9% of the patients remained completely pad-free.
Conclusion: The homemade tension free mid-urethral sling procedure is safe and effective in treating female stress urinary incontinence.

12
Artificial urinary sphincter for urinary incontinence: a single center's experience

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Objective: To assess the outcomes and Quality of Life (QOL) changes in urinary incontinent patients who have undergone artificial urinary sphincter (AUS) insertion.
Patients and Methods: Patients with urinary incontinence with AUS insertion were collected prospectively since January 2011. Patients were asked to perform a one hour pad test and to fill out QOL questionnaires (UDI-7, IIQ-7, WHO-5, and Herth Hope Index) pre-operatively and on each follow up appointment. The patients were followed up every 3 months post-operatively.
Results:

One hour pad test	No. of Patients	Mean (gm)	Range (gm)
Pre-operatively	5	46.4	14–130
1st follow up	10	6.5	0–25
2nd follow up	8	3.5	0–3
3rd follow up	7	4.3	0–10

Of the 5 patients who had completed pre-operative and post-operative UDI-6 and IIQ-7, 3 patients have an decrease in UDI-6 total score (22.5% to 80.6% decrease) and 4 patients have a decrease in IIQ-7 total score (8.8% to 84.3% decrease). Of the 4 patients who have pre-operative and post-operative WHO-5 & Herth Hope index questionnaires completed, only 1 patient shows significant improvement in WHO-5 total score (>10%) and Herth Hope Index.
Conclusion: While the objective measure of urinary continence by the one hour pad test and QOL questionnaires focused on urinary symptoms (UDI-6 and IIQ-7) show significant improvement in patients with AUS inserted, the general well-being (WHO-5) and hopefulness (Herth Hope index) may not have similar improvements. More pre-operative counselling and psychosocial support may be needed in patients who suffer from urinary incontinence, and not just surgery.

13
Health related quality of life after one-year maintenance intravesical Bacillus Calmette-Gurein for non-muscle invasive bladder: experience from a urology centre in Hong Kong

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Objective: This study aims to assess health related quality of life (HRQOL) after 1 year maintenance BCG treatment by Connaught strain BCG in our hospital.
Patients and Methods: Patients who had started intravesical BCG treatment from July 2010 to August 2012 were reviewed. After 1 year maintenance therapy, all patients (including those who had withdrawn from BCG treatment due to side effects) were invited to fill out the Chinese version of Functional Assessment of Cancer Therapy – Bladder cancer (FACT-BI) questionnaire to assess their health related quality of life (HRQOL). The HRQOL normal value from Hong Kong cancer patients and US general adult norm were used as baseline reference.
Results: 63 patients were included for review. We had received the FACT-BI questionnaire from 29 patients (46%), with 6 of them withdrawing from BCG treatment due to side effects. The results of the FACT-BI questionnaire were as follows:

	Overall	On BCG	Withdrawal	HK cancer	US norm
Physical well being	22.9	23.4	19.6	21.8	22.7
Social well being	19.8	20.8	13.1	19.3	19.1
Emotional well being	19.2	19.3	18.8	13.7	19.9
Functional well being	17.2	17.8	13.2	13.7	18.5
FACT – General	76.7	78.4	64.8	73.4	80.1
FACT – BI	104.2	105	88.8	–	–

Conclusion: Overall HRQOL after BCG treatments appeared similar to the general populations. Physical well-being and social well-being of the patients could be impaired after they withdrawal from BCG due to side effects. Further studies are required to verify this possibility.

14
Review of outcome in Memokath patients in PYNEH

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Aim: To review the outcomes and identify risk factors for poor outcome in patients with Memokath prostatic stents.
Method: Patients who undergo Memokath prostatic stent insertion were recruited prospectively. Patient demographics, ADL, medical comorbidities, precipitating factors of retention, first catheterization volumes, post-operative complications, and functional outcomes of stents were recorded.
Results: Total of 53 patients with Memokath inserted from Nov 2010 to May 2012 in PYNEH. Age ranged from 62–97 years old. 49% of patients were chairbound or bedbound. 90.2% of patients were able to self void immediately after stent insertion. Follow up ranged from less than 3 months to 18 months after prostatic stent insertion. Mean follow up of 6 months with 94% of patients having functioning prostatic stents in those who were able to successfully void after prostatic stent insertion. Long hospital stay were associated with pacemaker ($p = 0.03$) and AROU precipitated by anorectal conditions ($p = 0.014$). Post-stent insertion AROU (6 patients in total) were associated with patients with 4 or more organ-systems afflicted ($p = 0.019$), presence of COAD ($p = 0.057$), and age ($p = 0.09$). 3 patients had stent migration due to Foley insertion (Foley size smaller than Fr 12). 1 patient developed recurrent AROU despite repositioning, requiring bipolar TURP and removal of stent. Spontaneous stent migration occurred in 3 patients (5.7%).
Conclusion: Memokath is a good way to allow patients to be catheter-free. AROU after Memokath insertion is uncommon. But when it occurs, it is best to insert suprapubic catheter in order to prevent stent migration.

15
Effectiveness of early intensive behavioral therapy in improving urinary incontinence and quality of life of women in a nurse-led clinic

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Objective: To investigate the effectiveness of early intensive behavioral therapy in improving urinary incontinence of women in a nurse-led clinic without prior doctor's consultation.
Patients and Method: A nurse-led Well-Women Urology Clinic (WWUC) was set up for women with urinary incontinence. Each patient was scheduled for 3 Urology nurse consultations, once every 4 weeks. In each visit, assessment included urinary symptoms, severity of urinary incontinence, Urogenital Distress Inventory-6 (UDI-6), Incontinence Impact Questionnaire short form (IIQ-7), and pelvic floor muscle strength using Modified Oxford Scale (MOS). Behavioral therapy including drinking and voiding habits modification, bladder retraining, and pelvic floor exercise were taught.
Result: 49 women (mean age 55.7) were seen in the WWUC. 13 had stress urinary incontinence only, 3 had urge incontinence only, and 33 had mixed urinary incontinence. After 3 visits, 62.2% (23/37) had subjective improvement in urinary incontinence episodes. 40% (17/43) had improvement in PFE compliance after second and third visit.

	First visit	Third visit	p-value
No. of Pad/day	1.24	0.22	$p = 0.002$*
Any pad use	23/47 (49%)	5/32 (16%)	$p < 0.001$#
Modified Oxford scale	2.07	2.88	$p = 0.001$*
Pelvic muscle holding time (seconds)	7.50	7.90	$p = 0.405$*
UDI-6	6.63	4.51	$p = 0.002$*
IIQ-7	6.81	3.43	$p < 0.001$*

*Paired T-test; #McNemar test.

Conclusion: With early assessment and intensive behavioral therapy by Urology nurse before doctor's consultation, significant improvement in urinary incontinence symptoms and quality of life was observed in women with urinary incontinence.

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Greenlight laser treatment for BPH in Hong Kong using CROES Greenlight Laser Global Study Database

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Purpose: North District Hospital is one of 30 centers participating in this study organized by the Clinical Research Office of the Endourological Society (CROES). We report the current indications for HPS Greenlight laser treatment and outcomes in terms of objective and subjective improvement in a prospective data-base.
Methods: Prospective data on consecutive 43 patients treated with PVP from May 2010 to May 2011 were collected. Patient characteristics, operative characteristics, outcomes and morbidity were assessed.
Results: Among the 43 patients, 21 patients were having retention of urine. Average prostate size was 74.7 ml, 22 patients were on anticoagulant and mean Body Mass Index (BMI) were 24.1; Mean operative time was 71.1 minutes. No patients require blood transfusion and average drop in haematocrit was 0.04. At post-op 12 months, no patient required NSAIDs. 5 patients complained of retrograde ejaculatory and no incontinence reported. Maximum flow rate (Qmax) was improved from 8.3 ml/s to 12.3 ml/s; Post-void residual urine volume (PVR)

172.3 to 54.1 ml; International Prostate Symptom Score (IPSS) from 18.4 to 6.8; Quality of Life Score (QOL) 3.9 to 1.8. ($p \leq 0.05$)
Conclusion: Greenlight laser photoselective vaporization of prostate showed an effective and safe treatment for treatment of symptomatic benign prostatic hyperplasia.

17
A community study of uro-psycho-physical changes in young adults using ketamine

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Objective: This cross sectional study is to describe the effect of ketamine abuse on young adults' physical and mental health in different districts of Hong Kong
Patients and Method: A mobile clinic run by professional health-care workers from New Territories East Cluster hospitals is established at specific youth centres. Structural questionnaires and assessment tools was used to record physical, mental and urological health status.
Results: From Sept 2009 to May 2012, 216 cases from 10 districts were recruited by social workers. The mean age was 19.8. They started drug abuse at a mean age of 14.9. 84% take ≥3 times/week. In 54 sole ketamine abusers, 53.4% of their urine were positive for other illicit drugs. Average Pelvic pain and Urgency/ Frequency (PUF) symptoms score was 6.2 and border score was 2.9.
35 (16%) patients had hydronephrosis on USG and 16 (8%) had bilateral hydronephrosis. 20% patients complained of difficulty in urination, 5% had haematuria and 6% had urinary incontinence requiring further workup in urology clinic. The mean Hospital Anxiety and Depression (HAD) Scale was 14.8 and 13% had history of psychiatric consultation and 15% had suicidal acts.
Conclusion: The prevalence of urological and mental symptoms is lower than previous in-patient studies. We hope early screening can motivate young ketamine abusers to quit.

18
A case of ureteric amyloidosis

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Objective: This case report describes a young lady with ureteric amyloidosis, presented with renal colic.
Patients and Method: A 33-year-old lady presented with left renal colic and haematuria. Non-contrast CT scan revealed left hydronephrosis and hydroureter. Subsequent CT urogram showed irregular left ureter wall thickening.
Ureteroscopy showed an elevated, irregular mucosal lesion just proximal to left ureteric orifice. A patch of irregular mucosa was also noted at upper ureter (L4 level). Multiple biopsies were taken.
Results: Both biopsies showed pathological findings of amyloidosis. Patient's loin pain resolved with painkiller and remained asymptomatic. CT Urogram did not show evidence of ureteral obstruction.
Conclusion: Localized ureteral amyloidosis is a rare condition that is difficult to differentiate from malignancy. Ureteroscopy with biopsy is essential in making the diagnosis. Surgical excision with reconstruction may be required in patients with obstructing conditions whereas asymptomatic patients can be observed with imaging.

19
Radical versus partial nephrectomy for T1 renal cancer: equivalent oncological outcome with better renal preservation

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Objective: To examine and compare the outcome of radical and partial nephrectomy for T1 renal cancer (≤7 cm) in our centre.
Patients and Method: Between January 2005 and December 2010, 38 (44.2%) radical nephrectomies (RN) and 48 (55.8%) partial nephrectomies (PN) were performed for solitary, T1 renal cancer in patients with normal contralateral kidney. GFR was estimated with the Modification of Diet in Renal Disease (MDRD) formula. CKD was defined as GFR lower than 60 mL/min per 1.73 m^2. Cox regression model was used to compare overall survival and new onset of CKD.
Results: At last follow-up 32 RN patients (84.2%) and 43 PN patients (89.6%) were alive. There was no significant difference in overall survival between RN and PN patients (hazard ratio, 0.673; 95% confidence interval [CI], 0.128–3.529; $p = 0.64$). 1 RN patient (2.6%) developed systemic metastasis. RN patients had significantly higher reduction rate in GFR (35.4% vs 12.6%, $p = 0.000$), and higher risk in developing CKD (hazard ratio, 6.308; 95% CI, 2.074–19.189, $p = 0.001$).
Conclusion: Relative to RN in managing T1 renal cancer, PN has equivalent survival and oncological clearance, with superiority in renal preservation and lower incidence of new CKD onset. PN should be the treatment of choice for T1 renal cancer.

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An evaluation of *PSAwatch™* among patients in Hong Kong

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Introduction: *PSAwatch*™ has been developed as a device for point-of-care PSA assay for whole blood in 10 minutes. Studies in Western countries have demonstrated a good correlation between the PSA levels measured by laboratory means and *PSA watch*™.
Therefore, we would like to verify this correlation in our local laboratory for measurement of PSA level in local Chinese male patients.
Patients and Method: Patients with lower urinary tract symptoms attending pre-assessment nurse-led clinic in our hospital from June 2012 to August 2012 were recruited. Blood was taken for PSA measurement by *PSAwatch*™ and our local hospital laboratory (WHO calibration). Correlation of the PSA levels was then made.
Results: In the study period, a total of 83 patients (mean age of 65 years) were recruited in this study. Laboratory PSA values ranged from 0.4 to 90.5. Correlation between the PSA values measured by the two methods was very good ($R^2 = 0.97$).

Conclusion: *PSAwatch*™ is a quick and reliable method for measuring serum PSA among patients in Hong Kong.

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R.E.N.A.L Nephrometry Scoring System for management of solid renal mass

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Objective: To investigate the usage of the R.E.N.A.L nephrometry score in relations to the choice of treatment and post-operative complications for renal masses.
Patients and Method: Patients undergoing partial or total nephrectomy (PN vs TN) in a tertiary referral hospital were retrospectively reviewed. R.E.N.A.L nephrometry score was allocated to each renal tumor utilizing computerized imaging systems (GE Advantage Workstations) by a single blinded radiologist. Patient demographics, surgery choice (PN vs TN) and approach (open vs minimally invasive (MIS)) were analyzed with respect to the R.E.N.A.L score.
Results: Altogether 74 patients were analyzed, with no differences in demographics between PN and TN groups. There was significant difference in their mean R.E.N.A.L nephrometry score (6.89 vs 9.31, $P < 0.001$). Individual parameters of score were significantly different in terms of radius ($P < 0.001$), proximity to the collecting system ($P < 0.001$) and location relative to polar lines ($P = 0.017$). No difference was noted in post-operative 90-day morbidity and mortality, although ischemic time was significantly higher for patients with higher nephrometry score in the PN group (36 min vs 51.2 min vs 79.7 min, $P = 0.008$).
Conclusion: R.E.N.A.L nephromery score of a renal mass has significant correlations with our choice of surgery and approach to surgery, particularly in the PN group. It does not, however, correlate with post-operative complications.

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Primary Vesicoureteric Reflux (VUR): a 10-year single-centre experience on management of VUR

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Objective: To review our experience in the diagnosis and management of primary vesicoureteric reflux.
Patients and Method: All children diagnosed with VUR in our centre from January 2002 to July 2012 were included and retrospectively studied.
Results: Sixty-four patients (43% female and 57% male) with primary VUR (mean follow-up = 6 years) were studied. Presentations included antenatal diagnosis by ultrasonography (7 patients) and urinary tract infection (UTI) in 90% presented at mean age of 5.6 ± 6 month-old. Both ureters were equally affected. On presentation, 17% were grade I; 37% grade II; 25% grade III; 14% grade IV and 5% grade V. Antibiotics prophylaxis was adopted in 66% of patients with grade I-III reflux. Overall 51 patients (70%) had VUR resolved with conservative care (mean duration = 45 months). Nineteen patients (30%) underwent surgical treatment for high grade reflux: Deflux injection (n = 13) and ureteric reimplantation (n = 6), with successful resolution of VUR was noted in 9/13 (69%) and 4/6 (67%) respectively. Residual scarring was noted in 27% of patients. One patient had stage III chronic kidney disease and five patients had proteinuria.
Conclusion: With appropriate adoption of medical therapy or urological interventions, high successful rate of primary VUR resolution could be achieved.

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Non-functioning kidney (NFK): is nephrectomy indicated? A 10-year's review

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Objective: To review the necessity of nephrectomies in incidentally found NFK in adults without radiological features suggestive of malignancy.
Materials and Methods: Retrospective review of all nephrectomies primarily done for non-functioning kidneys from January 2000 to December 2009.
Results: Our series included 167 patients (75 male, 92 female) mean aged 56.0 years (range 18–84). The preoperative diagnoses were obstructive urolithiasis (79%), genitourinary tuberculosis (9%), ureteric strictures (5%) and congenital renal malformation (2%). Infective complications were found in 47 patients (28%) with NFK including pyelonephritis/pyonephrosis (93.6%), recurrent urinary tract infection (6.4%) and perinephric abscess (2%). 20 (12%) patients required external drainage or internal stenting prior to nephrectomies. The final histological results were chronic pyelonephritis (46%), nephrosclerosis & hydronephrotic kidneys (43%) and malignant tumors (3%) which consisted of two cases of renal cell carcinoma, one squamous cell carcinoma, two upper tract tansitional cell carcinoma. There was no statistically significant difference between the mean glomerular filtration rates (GFR) preoperatively and one year postoperatively.
Conclusion: Up to one third of patients with NFK had infective complications and minor percentage had underlying malignancies in final histological results in our series. Nephrectomies should be considered in NFK.

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Emergency urinary diversion for urosepsis – TMH experience

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Objective: To analyze retrospectively the clinical outcome of emergency urinary diversion for patients with urosepsis in Tuen Mun Hospital
Patients and Method: From Jan–Dec 2011, 46 patients underwent emergency urinary diversion for urosepsis. The hospital records of these patients were reviewed and the data were analyzed retrospectively
Results: 42 (91.3%) were febrile on admission with 18 (39.1%) having septicaemic shock despite broad-spectrum intravenous antibiotics. 3 patients (6.5%) required inotropic support pre-operatively. Percutaneous nephrostomy was decided

pre-operatively and was successful for 5 patients: urothelial tumour (2), graft kidney pyonephrosis (2) and a huge uterine fibroid (1). Retrograde ureteric stenting was decided for the other 41 patients pre-operatively but was successful in 33 patients (80.5%) only. For the 8 patients (19.5%) with failed retrograde ureteric stenting, same session antegrade percutaneous diversion was performed. E. coli (17) was the commonest bacteria in urine culture while 5 of them were ESBL positive strand, followed by enterococcus (4) and Klebsiella (3). 4 of our patients (8.7%) died of septic shock despite emergency drainage and maximal inotropic and antibiotics support.
Conclusion: While retrograde ureteric stenting as emergency urinary diversion is successful for 80% of the patients, preparation for antegrade nephrostomy is necessary as salvage procedure.

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Routine postoperative cystogram for laparoscopic radical prostatectomy – lessons we learned

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Objective: To study the time taken for healing of vesicourethral anastomosis in laparoscopic radical prostatectomy to achieve no radiological leakage in our setting and factors associated with prolong radiological leakage.
Method and Results: From 1/7/2009 to 31/6/2012, 104 laparoscopic radical prostatectomies were performed in our centre. Starting from 9/2010, routine cystogram was performed for 62 cases. The time for taking off tubal drain was comparable in two groups. Patients with tubal drain taken off before D12, routine cystogram allowed Foley catheter removal before D14 in 53.8% of cases when compared to 29.2% in the group before routine cystogram. With routine cystogram, it was noted that radiological leakage still occurred by D21 in up to 37.1% of cases. Radiological leakage over 21 days was found to be associated with positive surgical margin, GS > 3 + 3, PSA > 10 and T3 disease. Prolonged radiological leakage was associated with increased risk of biochemical recurrence (41.6% at 18 months). Incontinence rate at one year was not affected.
Conclusion: Routine postoperative cystogram allowed earlier removal of Foley. Prolong radiological leakage is associated with higher risk disease and consequently a poorer prognosis. The effect of prolong radiological leakage on urinary continence and urethral stricture was not demonstrated.

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The clinical outcome of patients with small prostates treated with transurethral resection for lower urinary tract symptoms due to benign prostatic hyperplasia

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Objective: To evaluate the improvement of uroflowmetry parameters in patients with lower urinary tract symptoms (LUTS) due to benign prostatic hyperplasia (BPH) and had transurethral resection of prostate (TURP) as their treatment, in relation to their resected prostatic weight.
Patients and Method: From January 2008 to June 2011, 217 patients underwent TURP for LUTS due to BPH. TURP efficacy was assessed at 3 months using uroflowmetry and post-void residual urine (PVRU). Patients were divided into 2 subgroups according to the resected prostate weight: resected prostate weight < 10 g and ≥10 g. Post-TURP parameters of the two groups were compared.
Results: From this cohort, 58 (26.7%) and 159 (73.7%) patients had resected prostate weight < 10 g and ≥10 g respectively. There was no significant difference in patient age, preoperative Q_{max} and PVRU between the two groups. After TURP, there was significant difference of ΔQmax (mean ΔQmax: Group A vs Group B; 5.05 ml/s vs 9.51 ml/s p = 0.003); and ΔPVR (mean ΔPVR: Group A vs Group B; 92.1 ml vs 168.6 ml p = 0.001)
Conclusion: There is statistically significant inferiority on improvement of flow rate and post-void residue volume in patient with small resected volume

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Emphysematous cystitis – a review of 3 cases

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Objective: To review 3 cases of emphysematous cystitis, an uncommon but potentially life threatening infection of urinary bladder by gas forming pathogens, and typically affect elderly female patients with diabetes mellitus.
Patients and Method: From January 2009–August 2012, 3 patients (2 female, 1 male), mean aged 73 years (range 62–83) were diagnosed with emphysematous cystitis in Tuen Mun Hospital. Their demographic data, clinical presentation, risk factors, radiographic phenomenon, microbiology and treatment modality were retrospectively analyzed.
Results: Among the 3 patients, 2 (66.6%) were diabetic. The clinical presentations were: lower abdominal pain (2); non-specific gastro-intestinal symptoms (1). Two were febrile on admission, with leukocytosis and renal impairment (raised serum creatinine level). Computer tomography revealed intra-vesical gas. *Escherichia coli* were cultured in urine specimen of all the patients and thus intra-venous beta-lactams was administered. Two patients later required broad spectrum antibiotic. Surgical drainage was performed to two of them and both died of uncontrolled sepsis afterwards.
Conclusion: Emphysematous cystitis is a potentially fatal condition. High index of suspicious is warranted for elderly diabetic patients with supra-pubic pain and deteriorating general condition. Early diagnosis, aggressive broad spectrum antibiotic and surgical treatment may be able to decrease the potential high mortality.

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Inguinal hernia after radical prostatectomy: the local experience

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Objective: To identify the risk factors of developing inguinal hernia after

radical prostatectomy for carcinoma of prostate.
Patients and Method: The study period is from 01-01-2007 to 30-06-2012. Patients who underwent either laparoscopic radical prostatectomy or robotic-assisted laparoscopic radical prostatectomy for carcinoma of prostate in our hospital were reviewed. Demographic data, operation details and relevant information were collected from clinical management system, operation records and medical records.
Results: There were in total of 218 patients reviewed. 25 patients underwent laparoscopic prostatectomy and 193 patients underwent robotic-assisted laparoscopic prostatectomy. The overall incidence of inguinal hernia after prostatectomy is 14.2%. There were 7 patients with pre-existing inguinal hernia repaired at the same time during radical prostatectomy. None of the patients recur on the same side. Patients who developed inguinal hernia after radical prostatectomy had lower mean BMI (23.1 vs 24.5, $p = 0.004$). The laparoscopic group is more prone to develop inguinal hernia than the robotic-assisted group (28% vs 12.4%, $p = 0.03$).
Conclusion: Lower BMI and laparoscopic approach are risk factors of developing inguinal hernia after radical prostatectomy. With increasing popularity of robotic-assisted laparoscopic radical prostatectomy, the incidence of postop inguinal hernia is expected to decrease.

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Laparoscopic pubo-prostatic sling operation for an incontinent gentleman with neurogenic sphincter deficiency

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Objective: We report our initial experience of achieving urinary continence in neurogenic sphincter deficiency by inserting a pubo-prostatic sling.
Patients and Method: A 58 years old paraplegic gentleman, with L2 spinal arteriovenous malformation and on intermittent catherization (CISC), presented to us with stress urinary incontinence. Urodynamics demonstrated acontractile bladder and sphincteric deficiency, Valsalva Leak Point Pressure (VLPP) was 40 cmH_2O. A pubo-prostatic sling, fashioned from a prolene mesh, was inserted laparoscopically around the prostatic urethra and anchored to the pubic bone, with extraperitoneal approach. Maximal Urethral Closing Pressure (MUCP) was measured intra-operatively to achieve desired tension.
Results: Intra-operatively, MUCP increased from 43 to 145 cmH_2O after sling insertion. Urethral Foley catheter was kept for two more weeks before the patient resumed CISC, which was performed smoothly. Urodynamics parameters at 4 months post-operatively improved (VLPP 120 cmH_2O, MUCP 66 cmH_2O). There was no intra-op complication, and there was no other short-term adverse outcome reported on 4 months follow up.
Conclusion: While artificial urinary sphincter remains gold standard for male sphincteric deficiency, the initial urodynamic outcome of the pubo-prostatic sling showed encouraging results. Long-term follow up will be necessary to study the efficacy and potential long term complications such as urethral erosion.

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Peri-prostatic nerve block is safe in transrectal ultrasound guided prostate biopsy

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Objective: To demonstrate the safety of using peri-prostatic nerve block as local anaesthesia in transrectal ultrasound (TRUS) guided prostate biopsy by reviewing the complication rate
Patients and Method: It was a retrospective non-randomized controlled study. The cohort comprised of 221 men who underwent TRUS guided prostate biopsy. The indication was abnormal PSA and/or abnormal digital rectal examination. All the biopsies were performed by specialists or higher surgical trainees in Urology. Patients were divided into two groups. Group 1 (84 patients) received intra-muscular Pethidine as sedoanalgesia. Group 2 (137 patients) received peri-prostatic nerve block with 1% Lignocaine. Early and late complications were analysed. Complications were defined as unwanted conditions related to biopsy such as bleeding, urinary retention and infection that required prolonged hospital stay, unplanned readmission or medical consultation.
Results: Mean age of patient was 67-year-old. 6 patients developed complications in this cohort. 4 were in group 1 and 2 were in group 2. The complication rate of group 1 and group 2 were 4.7% and 1.5% respectively. Fisher's exact test showed that the difference is statistically insignificant ($p = 0.199$).
Conclusion: Our results suggest that peri-prostatic nerve block for TRUS guided prostate biopsy is a safe option of analgesia compared with sedoanalgesia by intramuscular Pethidine.

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Case control study on predictors of prostate cancer on repeat prostate biopsy

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Objective: To assess the value of total prostate specific antigen (PSA), PSA density and PSA velocity to predict the outcome of repeat prostate biopsy in men with serum total PSA levels between 4 to 10 ng/ml.
Patients and Method: From June 2010 to June 2012, patients with PSA between 4 and 10 ng/ml who had prostate cancer detected on repeat prostate biopsy after an initial negative biopsy were retrieved. The patients' age, PSA and PSA density and velocity were compared with a control group with negative malignancy on repeat prostate biopsy. Patients with abnormal digital rectal examinations were excluded.
Results: There are 11 patients in the cancer group while in the control group there are 15 patients. There is significant difference in PSA density between the 2 groups ($p < 0.05$). Both age (OR = 1.30, 95% CI 1.00–1.73) and PSA density (OR = 2.98, 95% CI 2.16–3.79) are found to be significantly associated with prostate cancer on repeat biopsy. At PSA density cut-off of 0.15 ng/ml/cc, the sensitivity and specificity are 73% and 70% respectively.
Conclusion: Among patients with PSA level between 4 and 10 ng/ml, age and PSA density are found to be associated with prostate cancer on repeat biopsy.

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Age, tumor stage and pre-operative albumin level are independent predictive factors of mortality after radical cystectomy for bladder cancer in Hong Kong

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Objectives: To evaluate the association between patient age, other clinical factors and mortalities following radical cystectomy for treatment of bladder cancer.
Patients and Methods: We reviewed the outcome of 117 radical cystectomies performed in one urological unit from 2003 to 2011. Demographic and perioperative data, including tumour stage, Charlson Co-morbidity Index (CCI) and pre-operative albumin levels were retrieved from computer medical records. Risk factors for 30-day mortality, cancer-specific, other-caused and overall death rates at 5 years were calculated. The data were subsequently stratified and analyzed according to age.
Results: Of the 117 patients, 83 (70.9%) were aged ≤75 and 34 (29.1%) were aged >75. The mean follow-up time was 31.1 ± 29.3 months. Age, stage and pre-operative albumin level, but not CCI, were found to be prognostic factors for survival outcome following radical cystectomy. The overall 30-day mortality rate was 3.4% in the full sample, 1.2% in patients aged ≤75 and 9.6% in patients aged >75. There were no significant differences in 5-year cancer-caused mortalities between patients aged ≤75 and >75 (33.16% vs 32.97%, p = 0.956). In patients older than 75 years, the other-caused and overall mortality rates were 46.77% and 79.7%, respectively, and these rates were statistically higher than for younger patients (13.27% and 46.4%, respectively).
Conclusion: Age, tumour stage and pre-operative albumin level are strong predictors of survival after radical cystectomy. Non-cancer related death played a crucial role in overall mortality rate in elderly treated with radical cystectomy for bladder cancer.