

Conclusion: The novel model outperformed the PCPT risk calculator in all 5 patient cohorts and can be used to improve clinical decision making in Irish men under investigation for PCa.

0187: SINGLE CENTRE EXPERIENCE FROM THE ACCURACY OF CONVENTIONAL 1.5 T MAGNETIC RESONANCE IMAGING FOR THE DIAGNOSIS AND PRE-OPERATIVE STAGING OF PROSTATE CANCER

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Aim: Not all trusts in the UK have 3T MRI scanners. Are patients with suspected prostate cancer therefore adequately staged with a more conventional 1.5T MRI scanner? The aim of the study was to evaluate the accuracy of standard 1.5T MRI without endorectal coil for the staging of prostate cancer compared against the histopathological results following radical prostatectomy.

Methods: Prospective study enrolled 65 patients with biopsy-proven PCa who underwent MRI prior to undergoing radical prostatectomy from December 2012 to June 2014.

Results: Median times for patients having an MRI scan after TRUS biopsy were 32.5 days. Preoperatively 38.5% of patients were diagnosed with T3/T4 disease with MRI. The prevalence of pT3 and above prostate cancer confirmed histologically was 22/65 (33.84%). Postoperative down staging was documented in 12/65 (18.46%) while upstaging in 9/65 (13.85%). The sensitivity of MRI diagnosing T3 disease was 14/22 (63.63%), specificity 29/43 (67.44%), accuracy 43/65 (66.15%)

Conclusion: Standard MRI detected 63.63% of all patients with T3 prostate cancer, a crucial feature when planning definitive treatment. The promising detection rate of our study, while being operator dependent, offers a cost effective imaging modality for preoperative staging of prostate cancer.

0188: A COMPARISON OF LEARNING CURVES IN ROBOTIC PROSTATECTOMY WITHIN A CHANGING REFERRAL PRACTICE

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Aim: Increased numbers of high-risk patients with advanced disease are being treated with robotic prostatectomy (RP). We have explored the impact of this on the learning curves and pathological outcomes of three surgeons in a single RP tertiary unit.

Methods: Data was sourced from a prospective database and a previous publication from our unit. Three periods corresponding to the first and second 50 cases of three surgeons (A: 2005–2006, B: 2008–2009, C: >2010) were interrogated. One surgeon, (A), had prior extensive open RP experience.

Results: Low-risk disease represented 55%, 33% and 25% of referrals in periods A, B and C respectively while high-risk referrals accounted for 10%, 15% and 24% ($p=0.0001$). Analysing cases 1–50 demonstrated declining numbers of pT2 cases (A:74%, B:60% and C:46%) but an increase in pT3a cases (A: 22%, B:34% and C:48%) and final tumour volumes (A:9%, B:8% and C:22%) ($p=0.002$). Comparing cases 51–100 revealed identical trends. Positive surgical margin (PSM) rates for cases 1–50 were A:12%, B:20% and C:23% ($p=0.12$). For cases 51–100 there was again no significant difference in PSM rates.

Conclusion: There is an increasing risk profile amongst referred patients which has however had minimal impact on pathological outcomes during temporally different learning curves.

0237: PRESENCE OF DETRUSOR MUSCLE IN BLADDER TUMOUR RESECTION: THE ROLE OF OPERATOR EXPERIENCE

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Aim: Detrusor muscle (DM) in transurethral resection of bladder tumour (TURBT) specimens is a surrogate maker for resection quality. Studies have suggested a correlation with the level of operating surgeon. We audited tumour and surgical factors related to detrusor muscle sampling.

Methods: Retrospective review of TURBT cases from 01/2011–01/2014 in a district hospital. Demographics, tumour and surgical characteristics were collected and analysed.

Results: 179 patients were included (mean age 71.2 ± 12.2 years, male:female 141:38). Senior surgeons performed 129 (72.1%) resections. All TURBTs were performed on dedicated lists with a senior surgeon supervising. DM was present in 140 (78.2%) samples. Within the cohort, there was no significant difference in recurrence rate when DM was not sampled (OR 1.315, 95%CI 0.617–2.805, $p=0.479$).

Demographics for junior/senior surgeons significantly differed for ASA Grade, tumour multiplicity and location. No difference in DM resection was identified between junior/senior surgeons. Univariate analysis identified that DM was less likely to be sampled in high grade (G3) tumours (versus G1/G2, OR 0.345, $p=0.018^*$).

Conclusion: In contrast to previous studies, DM resection rates were not influenced by surgeon level. Impact of operator experience may be mitigated through the use of dedicated TURBT lists and direct senior supervising, although further investigation is needed.

0239: VALIDATION OF INFLAMMATION-BASED PROGNOSTIC SCORES AND HAEMATOLOGICAL PARAMETERS TO PREDICT BLADDER CANCER INVASION

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Aim: There is increasing evidence that inflammation plays a role in cancer development. We aimed to compare the predictive value of inflammation-based prognostic scores and haematological values in differentiating non-muscle invasive (NMIBC) and muscle invasive (MIBC) bladder cancer.

Methods: Bladder cancer cases from 01/2011–12/2013 were analysed retrospectively. Patient/tumour characteristics, prognostic scores (Neutrophil-to-lymphocyte ratio (NLR), derived NLR (dNLR) and platelet-to-lymphocyte ratio (PLR)) and haematology results were analysed.

Results: 227 patients were included: 176 and 51 in the NMIBC and MIBC groups, respectively. Groups were significantly different ($p<0.05$) with regards to age, tumour grade, size, NLR, dNLR, PLR, albumin and white cell, neutrophil, lymphocyte and platelet counts.

Of the prognostic scores, dNLR (threshold >2.32) had the greatest area under the ROC curve of 0.725 (Sensitivity 56.9%, Specificity 79.4%) as compared to NLR (0.710) and PLR (0.642) and was included in multivariate analysis. Mean dNLR was 1.86 ± 0.85 in NMIBC and 2.95 ± 2.04 in MIBC. Multivariate logistic regression analysis identified tumour grade (OR 19.968, 95%CI 5.008–79.614, $p<0.0001^*$) and dNLR (OR 2.260, 95%CI 1.032–4.947, $p=0.041^*$) as independent predictors of MIBC.

Conclusion: Our comparison indicates that dNLR may provide a simple, cost-effective marker for MIBC that can be performed at time of cystoscopy, thereby assisting in treatment planning.

0259: HOSPITAL ADMISSIONS WITH SEPSIS AFTER TRUS-GUIDED PROSTATE BIOPSY: ITS INCIDENCE AND BACTERIAL CHARACTERISTICS IN BOLTON, UK

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Aim: Transrectal ultrasound (TRUS)-guided prostate needle biopsy is a diagnostic procedure for prostate cancer. We aim to investigate incidence and bacterial characteristics of post-biopsy sepsis.

Methods: A retrospective analysis of medical records was performed in 1105 patients that underwent a 12-core TRUS-guided prostate biopsy at our hospital over a five-year period from January 2009 to December 2013. Cases in which patients admitted with sepsis within 14 days after the biopsy were investigated.

Results: Overall, 20 out of 1105 patients (1.81%) were admitted with sepsis within 7 ± 3.68 days after the biopsy. All patients received ciprofloxacin prophylaxis for 3 days. 15 patients (1.36%) had positive microbial culture. *Escherichia coli* (*E. coli*) grew in samples from 9 patients (60%), *Enterococcus* species in 2 patients (13.3%), non-*E. coli* coliforms in 5 patients (33.3%). One patient had different bacteria cultured from urine and blood samples. Fluoroquinolone-resistant bacteria were confirmed in 10 patients (62.5%). Resistance to trimethoprim, co-amoxiclav and tazocin was 43.8%,

31.2% and 6.3%, respectively. No resistance to carbapenem was reported. Two cases of *E. coli* had extended-spectrum β -lactamase activity.

Conclusion: *E. coli* appears to be the most common cause of sepsis post prostate biopsy. An intravenous tazocin or carbapenem-based therapy seems to provide satisfying antimicrobial cover.

0264: MULTIMODAL SEQUENTIAL TREATMENT OF SMALL RENAL MASSES WITH ARTERIAL EMBOLISATION AND RADIOFREQUENCY ABLATION

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Aim: Radiofrequency ablation (RFA) is a treatment option for small renal masses (SRMs) in patients unsuitable for radical therapy. Recognised complications are residual tumour, recurrence and haemorrhage. Sequential combination therapy with arterial embolisation and RFA can potentially reduce these complications. We assessed the initial results of this treatment in our centre.

Methods: Data was collected retrospectively on patients undergoing embolization and RFA between 2009–2012 including co-morbidities, tumour characteristics and renal function pre and post treatment. Mean follow-up period was 25.9 months. Effect of treatment was assessed on follow-up imaging at 1 month and subsequent defined intervals.

Results: 16 patients were identified with a mean age of 64 (Range 47–76) and mean Charlson co-morbidity index of 5 (Range 2–9). All patients had solitary non-metastatic tumours with maximal tumour diameter ranging from 1.5–5cm. Two patients had solitary kidneys due to previous RCC.

Mean creatinine was 101 $\mu\text{mol/L}$ (Range 64–203) pre-procedure and 113 (Range 64–269) post-procedure ($p=0.174$). 6/16 (38%) patients had a deterioration in eGFR.

3/16 (18.7%) patients required salvage RFA. One patient required two salvage treatments and one underwent laparoscopic nephrectomy for tumour enlargement. No disease related deaths were recorded.

Conclusion: Our study suggests that treatment of SRMs with sequential embolization and RFA is both safe and efficacious.

0346: ADULT MALE CIRCUMCISION UNDER LOCAL ANAESTHETIC: AN UNDER-UTILISED BUT SAFE AND EFFECTIVE ALTERNATIVE

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Aim: In the United Kingdom over 30,000 circumcisions take place per year, traditionally performed under General Anaesthetic (GA). Local Anaesthetic (LA) has been shown in literature to be a safe alternative with excellent analgesic outcomes.

Methods: A prospective audit over 18 months identified 26 patients as suitable and willing candidates to undergo LA circumcision. Patients were asked to record their pain score via a Visual Analogue score chart (VAS) both during and 90 minutes post-procedure, 0 = no pain, 10 = worst pain. LA used was 10mls of 1% lidocaine + 10mls of 0.5% bupivacaine as routine, with 1% lidocaine used as top-up if required.

Results: No patients suffered procedural complications. The mean age was 64.9 years: 42.5% of patients were ASA-3, 46.2% ASA-2 and 11.5% ASA-1. Only 26.9% needed Top-up LA. 73% of patients had an intraoperative VAS score of 0. All patients were pain-free post-operatively.

Conclusion: LA circumcision is a safe and effective alternative to GA circumcision in adult males, with excellent analgesic profile both intra-operatively and post-procedure. Avoidance of a GA has multiple benefits for both the patient and surgical institution.

0417: BLADDER CANCER-TUMOR BANK: THE CORNERSTONE OF NATIONAL AND INTERNATIONAL BASIC RESEARCH IN BLADDER CANCER

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Aim: Tumor banks have the primary responsibility for collecting, cataloging, storing and disseminating samples of tissues, cells and fluids, which are used by researchers to identify diagnostic molecular markers,

prognostic indicators and therapeutic targets. Our aim was to describe a simple, reliable and reproducible protocol for obtaining and storing samples of bladder cancer tumors.

Methods: Bladder cancer tumor tissues were obtained by the surgeons after endoscopic resection or after radical cystectomy. The obtained surgical specimens were immediately placed in liquid nitrogen, and then stored by cryopreservation (-80°C). A nother fragment was fixed in 10% formalin. For each patient, urine sample, blood sample, and serum sample were obtained and preserved for future research. Complete clinical data regarding the patient history, investigations, operative details and follow up details were recorded.

Results: We have till now 300 bladder cancer samples cryopreserved. For each patient, complete data sheet, pathology block, slide containing tumor print, 5–6 +ve charged unstained slides, and H/E stained slides representing the pathological features of the tumour including the histopathological subtype, stage, grade, and micro vascular invasion.

Conclusion: This protocol provides an important tool facilitating methods of diagnosis and treatment of bladder cancer. National and international multi centre research protocols for this field are encouraged.

0421: ANTICOAGULANTS & HAEMATURIA: THE CLINICAL AND ECONOMIC BURDEN OF ANTICOAGULANTS ON EMERGENCY UROLOGY ADMISSIONS

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Aim: Anticoagulant prescriptions are rising with new medications increasingly popular. This study focusses on the urological side effects of anticoagulants. Our aims were to determine: the prevalence of emergency haematuria admissions, which anticoagulants are prescribed in these patients, what inpatient management is required, and the economic cost of such admissions.

Methods: This was a retrospective study examining all emergency admissions at one urology centre over a ten month period. Digital records were examined for patients' medications, operation records and investigations performed. Cost analysis was performed in discussion with the base hospital.

Results: 106 patients produced 138 total emergency admissions with haematuria. 60 patients were taking ≥ 1 anticoagulant. Aspirin, clopidogrel and warfarin were the most common anticoagulants prescribed. 64.4% of admissions required bladder irrigation and 63% required flexible cystoscopy. 11 patients required emergency surgery. The cost of these admissions to the hospital was over $\pounds 90,000$.

Conclusion: This study showed that the majority of haematuria admissions were associated with anticoagulant use. 'Traditional' anticoagulants were the most commonly used; however, newer anticoagulants such as rivaroxaban were associated with longer inpatient stays, likely due to their irreversibility. Previous research suggests up to one third of anticoagulant prescriptions are inappropriate, which offers significant potential savings.

0421: TOTAL PELVIC EXENTERATION FOR LOCALLY ADVANCED (T4) BLADDER CANCER: A SINGLE CENTRE EXPERIENCE

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Aim: Total pelvic exenteration is an effective procedure in colorectal and gynaecological malignancies, but its role in advanced bladder cancer is not well documented. Our aim was to review surgical outcomes of all patients following total pelvic exenteration at our institute.

Methods: A retrospective review of all patients who underwent total pelvic exenteration for bladder malignancy between 1992–2014 was performed. Data on patient demographics, staging, surgical complications, postoperative histology, follow up and survival rates were collected.

Results: A total of 11 patients were included in the study with a median age of 68 years. 9 procedures were carried out for locally advanced primary carcinoma and 2 for recurrent disease. Clear resection margins were achieved in 6 (54.5%) patients. 4 patients developed significant post-operative complications and median length of hospital stay was 18 days. No deaths were reported within 90 days of surgery. Median survival was 11 months and 5 year survival rate was 18%.