



Caribbean Urological Association
16th Annual International Conference
November 7th & 8th, 2014
Montego Bay, Jamaica, West Indies

Abstracts

Complications of prostate biopsy at a tertiary hospital in Trinidad

Gooden K, Persaud S, Rambarran N, Goetz L

Division of Urology, Department of Clinical Surgical Services

University of the West Indies, St Augustine Campus, Trinidad and Tobago

Objectives: To prospectively evaluate the complications of prostate biopsy at the San Fernando General Hospital and to identify risk factors for developing such complications.

Method: All patients who underwent prostate biopsy between June 2013 and September 2014 at the San Fernando General Hospital were prospectively evaluated. A pre-biopsy questionnaire was administered to provide demographic information. Immediate complications were recorded at the time of the procedure. Patients were contacted via telephone weekly for four weeks following biopsy and complications recorded. Clinical information included ethnicity, PSA, prostate volume, hypertension, diabetes, previous hospital admission and recent antibiotic use.

Results: During the study period 233 men underwent prostate biopsy. The mean age was 68.2 years. PSA elevation was the most common indication for prostate biopsy (66.6%). The most common co-morbidity was hypertension (46.8%) and most patients tolerated the procedure with minimal discomfort.

The most common complication was hematuria, 58.3% experienced macroscopic hematuria with a mean duration of 2.95 days. No one required hospital admission and none was related to aspirin or NSAID use. 9.2% complained of hematospermia with a mean duration of 2.6 weeks and a mean number of ejaculate of 2.6. 19.2% experienced hematochezia with a mean duration of 1.95 days. One patient who experienced hematochezia required hospital admission. 1.3% experienced AUR and 15% complained of voiding symptoms. 7.8% experienced infective complications of

whom 3 required hospital admission, 4 visited their general practitioner and 9 resolved with antipyretic measures alone.

Conclusion: Transrectal ultrasound guided needle prostate biopsy is associated with frequent minor complications and few major complications. Infective complications remain a concern and further study is required to identify possible risk factors.

The 4Kscore test – a new blood biomarker for aggressive prostate cancer

Sant G. R.

Department of Urology, Tufts University School of Medicine, Boston, MA, USA

Introduction: Prostate cancer (PCa) screening utilizing PSA is controversial because PSA is a non-specific biomarker that leads to over-diagnosis and overtreatment. Recently introduced prostate cancer biomarkers hold promise to change the way PCa is currently detected and managed. The 4Kscore blood test is a new commercially available test that combines four prostate-specific kallikrein biomarkers (total PSA, free PSA, intact PSA and human kallikrein 2), with clinical information (patient age, digital rectal examination findings and history of prior prostate biopsy) into an algorithm that calculates an individual patient's percent risk for having high-grade prostate cancer (Gleason Score ≥ 7) - the lethal form of prostate cancer that should be treated. This information is available prior to prostate biopsy and is useful in the shared decision-making regarding need for prostate biopsy.

Background: The 4Kscore Test was developed by OPKO Lab and is performed at its CLIA-accredited laboratory facility. The 4Kscore test biomarkers were developed at Memorial Sloan-Kettering Cancer Center in the US and leading research centers in Europe in over 10,000 patients. The test accurately discriminates between pathologically indolent versus aggressive disease with an AUC (area under the curve) of 0.80 to 0.90.

Study: A recent US multicenter, blinded study prospectively validated the clinical utility of the 4Kscore test to predict the risk high-grade prostate cancer at prostate biopsy. 1,012 men scheduled for prostate biopsy, regardless of PSA level or clinical findings at 26 US centers between October 2013 and April 2014 were enrolled. Pathologic findings as reported by the local pathologist were correlated with the pre-biopsy blood 4Kscore.



Findings: The 4Kscore showed high discrimination (AUC = 0.82), well correlated risk calibration, and higher net benefit by decision curve analysis DCA) compared to the Prostate Cancer Prevention Trial (PCPT) Risk Calculator 2.0 model. 42% of the prostate biopsies could have been avoided at a 9% 4Kscore risk threshold. The high concordance between predicted versus actual findings of high grade PCa on biopsy was noteworthy.

Conclusion: The 4Kscore test has excellent diagnostic performance with high sensitivity to detect high-grade cancer and high negative predictive value to avoid prostate biopsies where there is no high-grade cancer present. It is a useful tool in identifying men likely to have high-grade, aggressive prostate cancer who can benefit from prostate biopsy and definitive treatment while avoiding prostate biopsies in men who are at low risk for high-grade disease.

Fecal carriage of ciprofloxacin resistant *Escherichia coli* in patients undergoing trans-rectal ultrasound guided prostate biopsy at the San Fernando General Hospital

Sukhraj R*, Persaud S*, Gooden K*, Navas A#, Akpaka P#, Goetz L*

Department of Microbiology, San Fernando General Hospital, Trinidad

* *Division of Urology, Department of Clinical Surgical Services*

University of the West Indies, St Augustine Campus, Trinidad and Tobago

Objectives: To establish the prevalence of ciprofloxacin resistant *Escherichia coli* in the fecal carriage of patients undergoing trans-rectal ultrasound guided prostate biopsy and to identify risk factors for harboring ciprofloxacin resistant *E. coli*.

Methodology: From August to October 2014, all patients undergoing trans-rectal ultrasound guided prostate biopsy had rectal swabbing done. Also, data regarding demographics, recent hospitalization and antibiotic use, prior biopsy, and indwelling urinary catheters were prospectively collected. All isolates of *Escherichia coli* were tested for sensitivity to ciprofloxacin and other antibiotics commonly used in urological practice. Patients were followed for 4 weeks post biopsy for complications.

Results: 52 patients had rectal swabs taken, and 40 cultures were positive for *Escherichia coli* with 24 (60%) being resistant to ciprofloxacin and 67% (16/24) of these isolates being multi-drug resistant. Resistance to other antibiotics commonly used in urological practice were also



identified: gentamicin 35% (13/37), amoxicillin/clavulanate 48% (19/40), piperacillin/tazobactam 16% (7/40), trimethoprim/sulfamethoxazole 42% (13/31) and ceftriaxone 42% (13/31). All patients with indwelling catheters and 66% of patients who had recently used antibiotics harboured resistant strains of *E.coli*. There did not appear to be any correlation between resistance and patients' age, PSA values, previous biopsy or recent hospitalization.

Conclusion: There is a high prevalence of Ciprofloxacin resistant *Escherichia coli* in the fecal carriage of patients undergoing TRUS guided prostate biopsy at the San Fernando General Hospital. This is an ongoing study, and as the number of patients increases we will determine whether our current prophylaxis policy needs to be revisited and whether targeted antibiotic prophylaxis should be considered.

A case of a penile fracture: Delayed repair as an alternative approach.

Wong D

University Hospital of the West Indies

University of the West Indies, Mona Campus, Jamaica

Penile fracture is a relatively uncommon clinical condition. Most cases are due to traumatic rupture of the tunica albuginea of the erect penis during aggressive sexual intercourse, except in some countries like Iran, where taghaandan (self manipulation to achieve detumescence) is commonplace. The contemporary best practice is immediate exploration and repair by a subcoronal degloving approach. The urological team at the University Hospital of the West Indies made a clinical diagnosis of a penile fracture (without suspicion of urethral injury) in an uncircumcised 53year old man on day one of the insult. He was offered an elective delayed repair, as an alternative to an immediate exploration, and was managed as an outpatient with oral diclofenac and subsequently had surgical repair on day eight post injury. The intentional delay resulted in a localized hematoma over the site of injury and a reduction in surrounding oedema, which thereby allowed for a localized incision and repair instead of the traditional subcoronal degloving incision. Surgical repair was considered quick and simple and no intraoperative complications occurred. So far, postoperative outcomes have been comparable and he has achieved good erections. We consider a delayed repair to be not only a safe and simple



alternative, but potentially advantageous- due to- smaller localized incision, preservation of foreskin, no need for hospital admission, and less potential complications like skin necrosis.

Erectile Dysfunction after Sickle Cell Disease-Associated Recurrent Ischemic Priapism: Profile and Risk Factors

Anele U and Burnett A L

Brady Urological Institute, Johns Hopkins Hospital, USA

Introduction: Priapism is a pathologic condition involving prolonged erection unassociated with sexual interest. It is estimated to affect approximately 40% of patients with sickle cell disease (SCD). Ischemic priapism (distinct from non-ischemic priapism) comprises the vast majority of priapism presentations (>90%). Major ischemic priapism episodes are characterized as lasting commonly approximately six hours or longer because of irreversible, time-dependent histological changes to erectile tissue ultrastructure after this duration of time. Beyond 24 hours, these episodes often render the devastating sequelae of erectile tissue necrosis and subsequent fibrosis, resulting predictably in erectile dysfunction (ED) with rates as high as 90%. However, reports of ED have also been related to minor ischemic priapism episodes, commonly referred to as “stuttering” or recurrent ischemic priapism (RIP), in which durations of priapism are observed to be a few hours or less. Accordingly, a prolonged duration of priapism of many hours does not solely account for the risk of ED, and alternative risk factors may account for the outcome of ED in patients with RIP.

Aim: Our aim in this investigation was to determine and compare ED risk factors associated with SCD and non-SCD related “minor” RIP, defined as having \geq two episodes of ischemic priapism within the past six months with the majority (> 75%) of episodes lasting < five hrs.

Method: We performed a retrospective study of RIP in SCD and non-SCD patients presenting to the urology and hematology clinics of the Johns Hopkins Medical Institutions from June 2004 to March 2014 using priapism-specific, International Index of Erectile Function (IIEF) and IIEF-5 questionnaires. The study comprised 59 patients: 40 SCD (mean age 28.2 ± 8.9 yrs) and 19 non-SCD (15 idiopathic and 4 drug-related etiologies) (mean age 32.6 ± 11.7 yrs). Nineteen of 40 (47.5%) SCD patients vs 4 of 19 (21.1%) non-SCD patients (39% overall) had ED (IIEF < 26



or IIEF-5 <22) (p=0.052). SCD patients had a longer mean RIP duration than non-SCD patients (p=0.004). Thirty of 40 (75%) SCD patients vs 10 of 19 (52.6%) non-SCD patients (p=0.14) had “very minor” RIP episodes regularly lasting \leq 2 hrs). Twenty eight of 40 (70%) SCD patients vs 14 of 19 (73.7%) non-SCD patients had weekly or more frequent episodes (p=1). Of all patients with very minor RIP, ED was found among 14 of 30 (46.7%) SCD patients vs none of 10 (0%) non-SCD patients (p=0.008). Using logistic regression analysis, the odds ratio for developing ED was 4.7 for SCD patients, when controlling for RIP variables (95% CI: 1.1-21.0).

Conclusion: ED is associated with RIP, occurring in nearly 40% of affected individuals overall. SCD patients are more likely to experience ED in the setting of “very minor” RIP episodes and are 5 times more likely to develop ED in association with RIP compared to non-SCD patients.

Atypical small acinar proliferation on prostate biopsies at the University of the West Indies

Brown M, Morrison B, Coard K, Reid M.

University Hospital of the West Indies

University of the West Indies, Mona Campus, Jamaica

Introduction: Prostate adenocarcinoma is the leading male cancer in Jamaica and the Caribbean as well as the leading cause of cancer-related deaths. Atypical small acinar proliferation (ASAP), a histological diagnosis that does not demonstrate all the features of adenocarcinoma is considered pre-malignant and usually warrants a repeat prostate biopsy. ASAP is seen in 1.5-9% of prostate biopsies and results in an ultimate diagnosis of cancer in 40% of biopsies repeated. We sought to determine the prevalence of ASAP in prostate biopsies done at the University Hospital of the West Indies and determine the outcome of these patients.

Methods: A retrospective analysis of all prostate biopsies done at the UHWI from January 2000 to December 2007 was done. The histology reports were reviewed and all ASAP reports were extracted and dockets reviewed. Outcome of patients including prostate cancer diagnosed and survival were determined. The results were analyzed using Stata® statistical tool.

Results: A total of 1670 prostate biopsies were done from January 2000 to December 2007 with 57 (3.4%) having a diagnosis of ASAP. Thirty two (32) patient records were analyzed, mean age



of 69.2 years. Twenty five (25) patients had follow up for repeat biopsies with a cancer detection rate of 36%. Most cancers detected were well to moderately differentiated adenocarcinoma.

Conclusion: The prevalence of ASAP in Jamaica is similar to internationally quoted studies. Close follow up is required post diagnosis as it is a premalignant lesion to clinically significant prostate cancer.

Major Priapism at the University Hospital of the West Indies, Kingston, Jamaica

Rhudd A

University Hospital of the West Indies

University of the West Indies, Mona Campus, Jamaica

Priapism is a persistent penile erection that continues beyond or is unrelated to sexual stimulation. It is an uncommon disorder usually found in high-risk groups, particular those with hyperviscosity hematological disorders such as sickle cell disease. Eland et al described an incidence of 1.5 per 100,000 person years. Sickle cell disease (SCD) as the cause of priapism depends on the population studied but ranges from 11%-67%. The University Hospital of the West Indies, Kingston, Jamaica is one of the two major tertiary institutions serving the corporate area. Emergencies such as priapism are likely to present to this institution. With a high prevalence of patients with the sickle cell disease in Jamaica and by extension in this population a high prevalence of SCD related priapism is expected. During the 11-year study period 65 patients with 129 episodes were seen. Of the 65 patients 45 had a history of SCD. 81% (non SCD) and 77% (SCD related) of cases had to be managed with invasive management techniques for tumescence. Prophylactic medical therapies were used in only 12% of patients, all of which had SCD. The study determined that SCD is a significant contributing factor to the incidence of priapism in this subset of our population studied.



100 Cases of PCNL in a Caribbean Island Setting

Rampaul M, Okoli U, Gooden K, Persaud M and Sukhraj R

San Fernando Teaching Hospital

Division of Urology, Department of Clinical Surgical Services

University of the West Indies, St Augustine Campus, Trinidad and Tobago

Introduction: Stone disease accounts for approximately half of the operative workload of urologists in Trinidad. Efficient and safe methods of stone removal are needed to minimize distress and save kidneys. PCNL has been recommended by the AUA as the method of choice for removing stones > 20 mm diameter and as a good option for lower pole stones 10- 20 mm.

Objectives: To review the first 100 cases of PCNL in a single surgeon practice at the San Fernando Teaching Hospital and to establish rates of stone clearance and complications.

Methods: Over a 29 month period, patients on the waiting list for open nephrolithotomy were offered PCNL. Under fluoroscopy, a 30Fr working tract was established. Stone fragmentation was done using the Swiss Lithoclast Master[®] device via a 24 Fr Wolf[®] nephroscope. Post operatively a 28 Fr nephrostomy tube was inserted into the tract and sutured to skin. On post-operative day 1, the nephrostomy tube was removed and the patient was discharged if stable, with oral antibiotics and analgesics. Each patient was reviewed in 1 week with a KUB x-ray, or CT KUB to assess for residual stone fragments and complications.

Results: 100 operations were performed in the study period, of which 85 patient records were available. The mean age of patients was 47.72 yrs, with equal numbers of males and females. Most patients had solitary stones (82%). The majority of stones were located in the lower pole (37%) and the renal pelvis (36%). 97% of stones were > 10mm. The mean operating time was 121 minutes and the mean post-operative hospital stay was 4.3 days, reducing to 2 days for the last 50 cases. The transfusion rate was 4%. Stone clearance rate was 93.8% and 76.8 % for stones <10 mm and >20mm respectively. Overall stone free rate was 82%. Minor complications included failed access (11%), chest wall pain (4%), prolonged leakage from nephrostomy sites (4%), and fever (6.7%). There were no organ injuries. One patient required ICU admission for respiratory support, and there were two sepsis related mortalities.

Conclusion: PCNL offer excellent stone clearance, great cosmetic results, high patient acceptability and relatively low morbidity. This procedure should be developed in all of our



Caribbean islands, even if in designated centers only. Because of its potential for complications, adequate training and supervision are advised.

Cigarette Smoking and Bladder Cancer: are people aware of the risk?

Aiken W, Brown M, Morrison B, Mayhew R

Division of Urology, Department of Surgery,

University of the West Indies, Mona Campus, Jamaica

Background: Bladder cancer is a common cancer affecting the urinary tract. Cigarette smoking is the most important population risk factor for bladder cancer but the level of awareness of this risk relationship among Jamaican patients is unknown. Determining the level of awareness is important in informing health education programmes aimed at decreasing the incidence of tobacco-related cancers.

Methods: Patients attending the urology clinics at the University Hospital of the West Indies, Kingston, Jamaica, were surveyed utilizing a self-administered questionnaire which enquired about their sociodemographic characteristics and smoking history as well as their opinion regarding a number of risk factors (age, family history, low fibre diet, high fat diet, lack of physical activity, multiple sexual partners and cigarette smoking) in relation to common cancers including lung and bladder cancer. The primary outcome was to determine the relative proportions of patients who were aware of the risk relationship between cigarette smoking and bladder cancer with those aware of the risk relationship between cigarette smoking and lung cancer.

Results: One hundred and fifteen patients completed the questionnaire, 57% (65) men and 43% (50) women. The average age of participants was 54 ± 16 years but men (58 years) were on average 8 years older than the women (50 years). The majority of the participants was either married or single and had received primary or secondary education. Only 32.4% (36 of 111) (95% confidence interval (95%CI); 23.9% – 42%) of persons were aware that cigarette smoking was a risk factor for bladder cancer compared to 93% (106 of 114) (95%CI; 86.6% - 96.9%) that were aware that cigarette smoking is a risk factor for lung cancer. This difference in awareness was highly statistically significant ($p=0.0001$). Eighty percent (4 of 5) of current smokers



compared to 28.4% (29 of 103) of non-smokers (Fisher's exact test, $p=0.031$) were aware of the association between cigarette smoking and bladder cancer.

Conclusions: Knowledge of the awareness of cigarette smoking as a cause of bladder cancer is very poor and this suggests that health education efforts should focus not only on cigarette smoke being a cause of lung cancer but should also aim to increase knowledge of the risks of tobacco smoke in causing other cancers including bladder cancer.

Effect of Hydroxyurea on Priapism in Jamaican Men with Sickle Cell Disease.

Morrison B, Hamilton P

University Hospital of the West Indies

University of the West Indies, Mona Campus, Jamaica

Introduction: Patients with sickle cell disease and priapism may have varying outcomes but to date, the optimal mode of pharmacological management is yet to be established.

Methods: Twelve (12) consenting Jamaican men with priapism who were treated with hydroxyurea (HU) were located by searching our Sickle Cell Unit (SCU) database and were interviewed between July 1, and September 30, 2014 using a modification of the standard priapism questionnaire, version 5/9/08 from The Johns Hopkins University. Three (3) of the patients were younger than twelve years old and consent was granted by their parents. Data were analyzed using Stata[®] software.

Results: Of the sixteen (16) patients alive who had priapism and received HU, twelve (12) were interviewed. All patients had ischemic priapism, 58% began experiencing priapism before 12y.o. with 75% reporting episodes during sleep. 41.6% started HU before 12y.o. with leading indications being recurrent painful crises and stroke (42% and 33% respectively). While before HU therapy 25% of patients had daily episodes, 42% had no further episodes after starting HU. Before HU therapy 33% reported episodes lasting greater than five hours (5hrs) and 16.5% less than thirty minutes (30mins). There was a reversal of the statistics after HU as 33% reported episodes less than 30 min and 8.3% (n=1) reported priapic episode longer than five hours. One patient reported having short 2 priapic episodes after being noncompliant with HU for two weeks but had no further episodes upon resuming therapy. All patients had analgesia and oxygen



therapy but only 23% had penile aspirations and 8.3% proceeded to penile surgery. None of the patients had penile scarring but 50% reported adverse effects and 8.3% reported negative effect on their relationships. Whilst 85.3% reported a subjective overall improvement, 83.3% reported no change in confidence with HU therapy.

Conclusion: Priapic episodes improved in sickle cell disease patients who are treated with HU. Larger randomized control studies are needed to assess the effect of HU on priapic episodes.

Prostate biopsy practices among Caribbean urologists: an online survey

Persaud S¹, Gooden K¹, Morrison B²

Division of Urology, Department of Clinical Surgical Services

¹*University of the West Indies, St Augustine Campus, Trinidad and Tobago*

²*University of the West Indies, Mona Campus, Jamaica*

Aim: Prostate biopsy is critical to the diagnosis of prostate cancer. Standards exist in order to optimize both diagnostic accuracy as well as patient well being. Anecdotally, urologists have been noted to vary both in patient preparation as well as biopsy technique. We therefore aimed to assess prostate biopsy practices among Caribbean urologists.

Methods: A questionnaire was designed to collect demographic data as well as data relating to practices surrounding prostate biopsy including patient preparation, biopsy technique as well as management of common histological findings. The questionnaire was distributed to urologists in the Caribbean using the online survey tool Survey Monkey®. All urologists on the mailing list of the Caribbean Urological Association were contacted. Data were collected, compiled in Microsoft Excel® and statistical analyses were performed.

Results: Forty (40) questionnaires were distributed of which 31 (77.5%) were returned. Nine (9) Caribbean territories were represented but most respondents were from Jamaica (12, 38.7%) and Trinidad and Tobago (9, 29.0%). Twenty seven (87.1%) indicated that they performed some or all of their own biopsies with 4 (12.9%) outsourcing biopsies to another colleague. The average number of biopsies performed per urologist was 7.2 (range 1- 20). Most urologists (21, 77.8%) did not utilize pre-biopsy enemas but all used prophylactic antibiotics. Fluroquinolones (24, 88.9%) were most commonly used as prophylaxis and most (24, 88.9%) employed a multidose



regimen, most commonly for 3 days (17, 65.4%). Analgesia was utilized by most urologists with 51.6% employing peri-prostatic nerve block, either alone or in combination. Most (16, 59.3%) urologists indicated their biopsies were solely ultrasound guided while 4 (14.8%) performed only digitally guided biopsies. In the majority of cases (19, 70.4%), twelve or more cores are routinely sampled. In their approach to unifocal high grade prostatic intraepithelial neoplasia (HGPIN), 54.8% were of the opinion that a single focus of HGPIN would not affect their decision to repeat biopsy. Their approach differed with multifocal PIN or atypical small acinar proliferation (ASAP) with the majority in favor of early (<6 months) rebiopsy of both entities.

Conclusion: This study illustrates the wide variations in practice among urologists in the region. Standard of care is not uniformly practiced.

Retrograde Intrarenal Lithotripsy (RIRL): A case for simultaneous treatment of bilateral renal stones <2cm endoscopically

Okoli U and Rampaul M

San Fernando Teaching Hospital

Division of Urology, Department of Clinical Surgical Sciences

University of the West Indies, St. Augustine Campus, Trinidad and Tobago

Introduction: Flexible ureterorenoscopy is an effective second line treatment for ESWL refractory renal calculi, and a reliable first line treatment for lower pole (LP) stones <1.0 cm. Retrograde intrarenal surgery (RIRS) has also been accepted as an option when ESWL or percutaneous nephrolithotomy (PCNL) might be ill-advised or contraindicated e.g. in pregnancy, morbid obesity and anticoagulated patients. Stone free rates using RIRS have been reported as 50-80% for calculi <1.5 cm, and 50-90% for LP stones <1cm diameter. To our knowledge, very little has been published on the application of RIRL to the treatment of bilateral renal stones simultaneously.

Method: We reviewed 13 patients with renal stones, 6mm-20mm, presenting over a 2-year period. They were offered RIRS as minimally invasive alternative to ESWL. Stones were fragmented with the holmium laser 200 micron fibre, via a 7.5 Fr ureterorenoscope and cleared with zero tipped nitinol baskets.



Results: In our small study of 13 patients with total of 32 renal stones, 2 (15.5%) had single stones, 3(23%) had multiple unilateral stones and 8(61.5%) patients had bilateral stones, (treated as 2 renal units each). Mean number of stones was 2.46 per patient (range 2-5). Mean stone size was 8.2mm (range 0.6-23mm), average number of procedures was 2.3 (range 1-3). Our results showed that of 18 renal units treated, 14 units were stone free. Stone free rates were: 8 (44.4%), 11(61.1%) and 13 units (77.2%) after 1, 2 and 3 procedures respectively. Residual fragments/stones remained in three units with 8, 15, 15 mm stone respectively and in a pelvic kidney, a 20mm stone (22.2%). There were no major complications; minor intraoperative complications included mild bleeding causing poor visibility and abandonment (2). Minor post op complications included haematuria (3), pyrexia (4), and significant post op haematuria requiring blood transfusion in one patient.

Conclusion: RIRS is a safe procedure which can be performed satisfactorily with adequate training and appropriate equipment, even in a third world country. We propose that it should become a preferred modality for treating multiple scattered stones and also for treating bilateral renal stones <2cm, simultaneously, in view of the minimal complications and high stone clearance rate.

Needlestick injuries and other high-risk exposures among surgical trainees at a teaching Hospital in Trinidad and Tobago.

Sukhraj R, Persaud S, Goetz L

Division of Urology, Department of Clinical Surgical Services

University of the West Indies, St Augustine Campus, Trinidad and Tobago

Objectives: To assess the prevalence of needle-stick injuries and other high risk exposures among surgical trainees at the San Fernando General Hospital, to establish the surgical trainees' familiarity with the hospital's policies and procedures regarding high risk exposures and to determine the rate of Hepatitis B vaccination among surgical trainees.

Method: Using a cross-sectional study design and an anonymous self-administered questionnaire, data were collected from non-specialist staff in the surgical fields (General



Surgery, Urology, Orthopedics, Plastic Surgery, Pediatrics and ENT). Respondents were asked about high-risk exposures during the previous 12 months and participation was voluntary.

Results: There were 40 respondents from the various specialties (General Surgery 47%, Urology 18%, Orthopedics, Pediatrics and ENT 10% each). The majority of the trainees were junior residents between the ages of 21 and 29 years. 75% of the respondents reported a high risk exposure in the past year (25% had a needlestick, 18% had bloody fluid splashed in the eyes, and 32% had both). The operating theatre was the location of 74% of the exposures. In the majority of cases, the supervisor was not informed, no source testing was done and no counseling nor post-exposure prophylaxis was administered. Only 2 of the needlestick injuries and none of the eye splashes were reported to OSHA. 57% of trainees were not aware of the hospital's policy regarding high-risk exposures and only 27% had received any training in dealing with such situation. All of the trainees were immunized against Hepatitis B.

Conclusion: There was a high rate of needle-stick and other high risk exposure among surgical trainees, and incident reporting and post-exposure management was inadequate. Educational and other preventive measures are urgently needed.

A pathological profile of prostate biopsies in a tertiary care centre in Trinidad and Tobago

Hosein I Z, Persaud S, Sukhraj R, Rambarran N, Goetz L

Division of Urology, Department of Clinical Surgical Services

University of the West Indies, St Augustine Campus, Trinidad and Tobago

Aims: To conduct a review of all prostate biopsies performed in our institution, a tertiary referral centre, over a period of two and a half years and to establish the clinico-pathological profile of prostate cancer seen in our hospital.

Method: A review of the biopsy records was conducted from January 2012 to July 2014 and an attempt was made to recover histology reports for all patients who had undergone biopsy during this period. Clinical and pathologic data were compiled and analyzed using Stata®.

Results: During the study period, 617 trans-rectal ultrasound guided prostate biopsies were performed. Pathological data were found for 546 patients of which 283 (51.8%) were reported as carcinoma of the prostate. All patients had 12 cores taken and in the case of prostate cancer



the average number of positive cores was 7.2. Of the 235 patients for whom PSA data were available, 60 (25.5%) presented with greatly elevated PSA levels (>100 ng/ml). Of significance, we found that patients of African descent were more likely to have higher PSA values than their Indo-Trinidadian counterparts: among patients with PSAs >100 Afro-Trinidadians featured almost three times as much as Indo-Trinidadians (27.51% vs 10.61%, $p < 0.001$). Afro-Trinidadians were also more likely to have a Gleason score of 9 ($p < 0.001$). The portion of Africans having prostate cancer on biopsy was 54% (204/373) compared to 44% (71/162) in East Indians, a difference which was not found to be statistically significant (Fisher's exact $p = 0.121$). Clinical stage T1 was the most commonly encountered stage. A Gleason's score of 7 was most common, accounting for 45.6% of all cancers. Perineural invasion was found in 28 (9.9%) cancers and showed a trend towards an increased incidence in Afro-Trinidadians although this did not reach statistical significance (Fisher's exact, $p = 0.353$). Using D'Amico risk classification most cases were found to be high risk (155/283, 55.12%) followed by intermediate risk (73/283 25.8%) and low risk (18/283 6.36%). Due to incomplete data 36(12.72%) patients could not be assigned a risk status. High grade prostatic intraepithelial neoplasia (HGPIN) was noted in 14 patients (2.6%).

Conclusion: This study demonstrates that over half of our biopsies were positive for cancer. Afro-Trinidadians made up a disproportionate number of those biopsied, and were more likely to be diagnosed with prostate cancer when biopsied. It demonstrated that a third of our patients presented with greatly elevated PSA levels. The presence of HGPIN was rare and there was no reported case of ASAP.

The Everyman Urethroplasty

Sharma D

Woodlands Hospital, Georgetown, Guyana, South America

To develop a simplified urethroplasty that can be performed by a competent surgeon working in the Third World. Posterior urethroplasty is a challenging, formidable operation. It will be required for patients who have suffered severe post traumatic urethral injury, oftentimes with fractured pelvis, seen after road traffic, construction site and forestry accidents: or after



mismanaged post infective stricture, disease with perineal sepsis and the watering can perineum. The simplified technique has been developed and refined during a 30 year experience working with approximately 100 patients. It is a no suture substitution urethroplasty done in two stages using perineo-scrotal skin to create a proximal neo-urethra.

