

Scientific Session 1

Starting a laparoscopic service in a rural community hospital – challenges and successes

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Laparoscopic cholecystectomy gained widespread acceptance as the standard of care by the international surgical community over twenty years ago. Percy Junor Hospital, a rural community institution in central Jamaica, had a successful start to the performance of laparoscopic surgery on November 23, 2012. On a day dubbed “Hospital Based Training in Laparoscopic Surgery”, four laparoscopic procedures including a completion cholecystectomy were completed without conversion. No intra or postoperative complications occurred and a high level of patient and staff satisfaction was noted. This was the first public step to engage stakeholders and facilitate Percy Junor Hospital approaching international standards and offering laparoscopic surgery as the standard of care for illnesses such as cholelithiasis.

The evolution of stone disease treatment at San Fernando General Hospital, Trinidad and Tobago

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Objective: To review the evolution of stone disease treatment at a public hospital in the Caribbean.

Design and Methods: Data were collected retrospectively from patients’ records, operating theatre logs and a urology department database. Two five-year periods were compared: 1987–1991 and 2007–2011. Comparisons included number and types of procedures performed as well as length of hospital stay.

Results: Between 1987 and 1991, 1039 operative cases were performed, with only 10% (105 patients) attributed to

stone disease, 99% being open surgical procedures. This contrasts greatly with the period 2007–2011, where 1733 major and 5381 minor cases were done. Forty per cent of major cases accounted for treatment of stone disease. Of these, 68% were endoscopic procedures and 32% were open. This increase was supported by the introduction of minimally invasive surgery and energy sources. Endoscopic shock wave lithotripsy has become the treatment modality for the largest number of patients with stone disease (1352 patients).

Conclusion: The availability of both extracorporeal and intracorporeal energy sources as well as relevant equipment and adequate training at public hospitals offer a variety of options and results in widespread delivery of treatment to patients suffering from urolithiasis.

The influence of sexual behaviour, sexually transmitted infections and condom use on prostate cancer risk in Jamaican men: a case-control study

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Objective: To determine if sexual behaviour, sexually transmitted infections (STIs) and condom use influence the development of prostate cancer in Jamaican men.

Methods: A hospital and office-based unmatched case-control study was conducted in Kingston, Jamaica involving 244 cases of prostate cancer and 275 controls, aged 40 to 79 years. Interviewer-administered questionnaires were used to record sexual factors, STIs and condom use prior to ascertainment of case-control status. Cases had histologically confirmed prostate cancer while controls had a normal digital rectal examination and either a total serum prostate specific antigen (PSA) below 2 ng/ml or a total serum PSA between 2 to 4 ng/ml with a free to total PSA ratio greater than 15%. Logistic regression was used to

measure the effects of sexual exposures, STIs and condom use on prostate cancer risk while adjusting for confounders.

Results: An unadjusted reduced odds of prostate cancer was found for the effect of the number of sexual partners and coital frequency in the year preceding diagnosis (odds ratio (OR) 0.79, 95% confidence interval (CI): 0.65, 0.94 and OR 0.80, 95% CI: 0.68, 0.95, respectively), condom use with regular and non-regular partners (OR 0.67, 95% CI: 0.48, 0.92 and OR 0.72, 95% CI: 0.56, 0.92, respectively); when adjusted for age, these effects disappeared. No statistically significant effects on prostate cancer risk were found for age at first coitus, lifetime number of sexual partners, sex with a prostitute and STIs, before and after adjusting for confounders.

Conclusion: Sexual behaviour, STIs and condom use are not important determinants of prostate cancer risk in Jamaican men.

Use of interrupted subcuticular sutures for circumcisions in boys: a preliminary report

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Objective: To describe and report on the safety and cosmetic outcome of using interrupted subcuticular suturing for circumcision in boys.

Subjects and Methods: Over a three-year period (January 2010–December 2012), boys presenting to the junior author at two paediatric surgical centres in Jamaica – The University Hospital of the West Indies and Bustamante Hospital for Children – who required circumcisions were offered use of interrupted subcuticular suturing and prospectively followed. Nineteen boys were involved, ranging in age from 12 months to 13 years. Circumcision was performed under general anaesthesia using the sleeve technique with use of interrupted, subcuticularly placed vicryl rapide sutures to approximate the wound edge. All boys were offered day case surgery and were prospectively followed-up for two specific factors – postoperative haemorrhage and cosmesis.

Results: The indication for circumcision included: persistent phimosis (14 boys), pathological phimosis (2 boys), balanitis xerotica obliterans [BXO] (1 boy), religious request (1 boy) and recurrent urinary tract infections (1 boy). None of the boys experienced postoperative bleeding. All were successfully managed as day cases. There were no cases of wound dehiscence. At clinic review all boys and/or their guardians expressed satisfaction with the cos-

metic outcome. None of the boys had stitch marks or sinuses after being prospectively followed-up for a mean of 16.6 months (1–29 months).

Conclusion: Interrupted subcuticular suturing for circumcision of boys offers good cosmesis and is not associated with an increased risk of postoperative bleeding.

Posterior urethral valves: the Trinidad and Tobago experience

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Objective: To determine the incidence of posterior urethral valves in Trinidad and Tobago and describe the presentation, management and outcomes of treatment in these patients.

Methods: Data were collected retrospectively for all patients managed for posterior urethral valves from 2005 to 2011 at the Eric Williams Medical Sciences Complex.

Results: Seventeen patients were managed for posterior urethral valves over the seven-year period. The incidence was one in 4500 male live births. Median age at presentation was six months (range: 1 day–11 years). Presentation was symptomatic in all patients (eight obstructive symptoms, nine urinary tract infections, seven renal failure and two antenatal hydronephrosis). Median serum creatinine on presentation was 0.9 mg/dL. Eight patients had vesicoureteric reflux. Initial management included eight patients for vesicostomy, four suprapubic catheterizations, two urethral catheterizations, two primary ablations and one bilateral ureterostomy. Resection was the definitive treatment in 13 patients and ablation in three. One patient died before definitive surgery. The average nadir creatinine was 0.58. Seven patients had no documented complications. Bladder dysfunction and recurrent urinary tract infections were the most common adverse outcomes.

Conclusions: The incidence of posterior urethral valves in Trinidad and Tobago is comparable to international figures but the mode of presentation is more commonly symptomatic rather than by antenatal ultrasound. Most cases are treated with initial vesicostomy and subsequent resection and the most common adverse outcome is bladder dysfunction. A move toward earlier diagnosis by antenatal ultrasound and earlier definitive treatment may improve outcome in these patients.

A prospective randomized trial comparing the Bart's "flank free" modified supine position with the classical prone position for percutaneous nephrolithotomy (PCNL)

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Objectives: To compare the classical prone position with the Bart's 'flank free' modified supine position for percutaneous nephrolithotomy (PCNL).

Methods: This was a multi-centre prospective randomized study looking at operative time, safety and effectiveness between the two groups.

Results: Thirty-two patients underwent supine and 33 patients prone PCNL. There was no significant difference in patient demographics between the two groups. In the supine group, 5, 16 and 16 upper, mid and lower pole punc-

tures were performed, respectively and seven (21.2%) patients had simultaneous retrograde intra-renal surgery (RIRS). In the prone group, 4, 6 and 26 upper, mid and lower pole punctures were performed, respectively. The mean stone burden was 4.1 cm² (0.8–12.6) in the supine group and 7.7 cm² (1.0–20.0) in the prone group. Stone clearance (defined as complete clearance) was 83.8% in the supine and 81.8% in the prone group. The mean operative time was 71.8 ± 20.6 minutes and 110.40 ± 54.7 minutes in the supine and the prone groups, respectively. Complications in the prone group included pyelocaliceal perforation in one (3%) patient, bleeding requiring transfusion in two (6%) and selective arterial embolization in one (3%) patient. In the supine group, one (3%) bowel perforation and one (3%) postoperative sepsis were noted.

Conclusion: The supine position was associated with significantly reduced operative time, better stone-clearance rate, less anaesthetic problems and comparable complication rates with the prone PCNL. In addition, the ability to perform simultaneous RIRS makes the Bart's "flank free" modified supine position the ideal position for carrying out PCNLs.