

Scientific Session 5

Video thoracoscopy in trauma

S Sagubadi, N Babootee, AJF Penco, SM West, I Ramnarine

Department of Thoracic Surgery, Eric Williams Medical Sciences Complex, Mt Hope, Trinidad and Tobago
E-mail: *babooteenicholas@gmail.com*

Objectives: Severe chest trauma is associated with a high morbidity and mortality. Surgery involves major thoracic incisions. Video-assisted thoracoscopic surgery (VATS) has been performed routinely in Trinidad and Tobago over the last five years. The objective was to determine whether VATS could provide an alternative to major thoracotomy while maintaining outcomes in thoracic trauma patients.

Methods: Haemodynamically stable patients with major thoracic trauma were assessed for suitability for initial VATS over major thoracic incisions.

Results: Between May and November 2012, five men (ages 18 to 27 years) were found suitable for VATS in trauma. Three patients presented with intra-thoracic foreign bodies as confirmed on radiology. These included a broken knife blade, bullet and firework fragment. All were successfully removed using VATS. Patients went home within four days without complication. Video-assisted thoracoscopic surgery was used as a diagnostic tool in the other two patients. A suspected left diaphragmatic rupture was confirmed using VATS. The diaphragm was then repaired through a laparotomy. That patient required postoperative intensive care unit (ICU) care. The other patient had a gunshot through the abdomen and chest. Right VATS was done which raised suspicion of oesophageal injury and ruled out other thoracic injuries. A distal oesophageal perforation was confirmed with endoscopy and repaired *via* laparotomy. These patients were discharged after 35 and 10 days, respectively.

Conclusions: This small series demonstrates that in a select group of patients with thoracic trauma, VATS can offer a useful alternative to a major thoracic incision.

Concrete washing sinks continue to maim and kill children in the West Indies. Can this be stopped?

V Jainarine, R Khan

Department of Paediatric Surgery, Eric Williams Medical Sciences Complex, Mt Hope, Trinidad and Tobago
E-mail: *drrogerkhan@gmail.com*

Objective: To highlight the spectrum of injuries caused by concrete washing sinks in the Caribbean and propose preventative measures.

Design and Methods: A retrospective case note review of 20 children injured by these sinks over three years at Eric Williams Medical Sciences Complex (EWMSC) was done. The mechanism of injuries was investigated and potential complications were highlighted.

Results: Eighteen boys and two girls aged 4–12 years were reportedly injured, with two mortalities and 18 morbidities. Children's weights ranged from 15–32 kg and all the sinks were never stabilized by any means. A force of 13–15 kg could cause the sink (68 kg) to topple. The weight of any one child in the study was able to cause such movement. The mechanism of action was the same for all the 20 children and the calculated pressure 47 500 Pa can be exerted by the edge of the sink on to any body part. Other hazards included falls and drownings and as such, recommendations for support and stabilization of these sinks were made together with the following: public health inspectors carrying out risks assessments, education programmes and manufacturers installation leaflets.

Conclusion: This unrecognized cause of blunt paediatric trauma can be prevented by studying the mechanism of injury. By modifying sink designs and implementing public education and awareness, the incidence and severity of the problem can be eliminated.

Penetrating anorectal injuries in Jamaican children

MV Vincent, C Abel, N Duncan

Department of Surgery, Radiology, Anaesthesia and Intensive Care, The University of the West Indies, Kingston, Jamaica

E-mail: *mvincent@yahoo.com*

Aim: To discuss the presentation, management and outcomes of penetrating anorectal injuries at the Bustamante Hospital for Children.

Methods: A retrospective review over an 11-year period from January 2001 to December 2011 was undertaken. The data analysed were extracted from patient notes.

Results: Over the study period, a total of 14 children presented with penetrating anorectal injuries. The medical records for one child were missing. The mean age at presentation was six years. Impalement by a metal spike was the mechanism of injury in 12 children, with one case of sexual assault. Three of the children had associated urogenital injuries. Ten rectal injuries were extra-peritoneal. Five (38%) were managed with a colostomy. Average time to closure was six months. There was one case of perineal wound infection and dehiscence. There was no mortality.

Conclusion: Selective faecal diversion in the form of a sigmoid loop colostomy is a safe and acceptable management option for children with penetrating anorectal injuries. The perineal wound can be closed primarily except in cases of delayed presentation.

Efficiency and effectiveness of operating room utilization in The Bahamas: can we meet the benchmarks?

J Osadebay, MA Frankson, R Roberts
Department of Surgery, Princess Margaret Hospital,
Nassau, Bahamas
E-mail: robinnassau50@yahoo.com

Objective: (i) To determine the perspectives of the staff of the Princess Margaret Hospital on the efficiency and effectiveness of the operating room (OR) utilization and (ii) to audit a urology service surgical bookings.

Methods: (i) A convenient sample of 170 hospital staff deployed and engaged in the daily OR activities were administered a questionnaire on the OR's efficiency and effectiveness; data were analysed using the SPSS programme. (ii) An audit was undertaken of all operating procedures performed on the once weekly, routine scheduled list of the urology service for a consecutive nine-month period covering the 2008 and 2009 calendar years.

Results: Opinions of OR staff varied widely regarding 1) surgery start time, 2) adequate nursing support, 3) punctuality of surgeons and anaesthetists, 4) turn-around time between cases, 5) equipment availability and maintenance and 6) timely instrument preparation and availability. There was little variation in reference to 1) tardiness of first case, 2) ambiance of staff waiting environment, 3) case cancellations, 4) the practice of "Truth Scheduling" and 5) adequate technician support. For the urology service, 29 OR days, scheduled once per week, were audited. Total cases and average number per day booked were 309 and

10.66, respectively. A total of 210 (68%) cases and 7.24 per day were performed; 53 total and 1.83 daily were postponed. Total patient "no shows" and the daily average were 45 and 1.55. Sixty per cent of the cases were outpatients and 40% inpatients. Average times noted were the morning start time delayed by 33 minutes, knife to skin eight minutes later, turnover time between cases 18 minutes, total day time spent in OR nine hours 23 minutes and the OR day ending at 6:13 pm.

Conclusion: As in the literature reviews, the size of the operating list and whether the list overran, both dictated by the surgeon, were the strongest predictors of list utilization.

Arterio-venous fistula and graft rates in a small Caribbean dialysis access practice and a larger North American city practice

J Stevens, M Yee-Sing
Peebles Hospital, Tortola, British Virgin Islands and
Providence Hospital, Washington, DC, United States of
America
E-mail: joel.stevens@aol.com

Objective: To compare the rates of fistula creation and graft insertion in both practices with the objective of avoiding long term catheter use.

Methods: A retrospective review was done on all fistulas created and all grafts placed for dialysis between January 1, 2007 and December 31, 2011 at the dialysis unit in Tortola, British Virgin Islands and the lead author's practice at Providence Hospital and Washington Hospital Centre in the United States of America. Long term catheter use (greater than six months) was also assessed at the Tortola unit.

Results: In Tortola, 23 fistulas were created and 28 grafts placed, representing a rate of forty-five per cent fistulas and fifty-five per cent grafts. There were three fistula failures, two of which received grafts and one a long term catheter. Only three patients were dialysed with catheters for more than six months. Eleven thrombectomies and/or revisions were done on nine grafts during the five-year period. Of the twelve patients with chronic renal failure but not in immediate need of dialysis, nine received fistulas and three received grafts for a 75% to 25% ratio. In the Washington DC practice, 155 fistulas were created and 207 grafts were placed representing forty-five per cent and fifty-seven per cent, respectively during this period.

Conclusions: Fistula creation is the preferred long term dialysis access, but if prolonged catheter use is to be avoided, the graft still has a significant role. Fistula rates can be increased when patients are referred for early placement.