
MILITARY MEDICAL MEETINGS

The annual TriService Surgical Meeting took place on March 23-24 2006 at Keogh Barracks Aldershot. The Military Surgical Society once again kindly provided prizes for both the Higher Surgical Trainee (HST) and Basic Surgical Trainee (BST) sessions. An enjoyable dinner in the Officers Mess was well attended on the Thursday evening. Congratulations to Major N Martin RAMC and Captain H Guthrie MBE RAMC, winners of the HST and BST prizes respectively. The HST abstracts are included below and Captain Guthrie's winning case report is included in full elsewhere in this edition.

The Assessment of Blunt Abdominal Trauma including Blast Injury

GS Lawton

Assessment of abdominal injury following blunt and blast trauma in the haemodynamically stable patient is a diagnostic challenge. Operate unnecessarily and the often multiply injured patient is subjected to the burden of a non-therapeutic laparotomy. Delay the diagnosis and incur significant penalties when surgical intervention is required. The ideal diagnostic test would be cheap, quick, non-invasive, sensitive, specific, repeatable and complication free. No current procedure or imaging modality meets these criteria. Historically the rate of non-therapeutic laparotomies was high. However, at open examination of the abdomen unsuspected or subtle injuries to clinically silent areas became apparent and could be addressed. The evolution from decision-making based upon clinical acumen alone to that influenced by procedures and non-invasive imaging has seen a trend towards a more conservative approach in the management of solid organ injury. The rate of non-therapeutic laparotomies has fallen but subtle injuries of the kind previously diagnosed serendipitously have been missed. Different techniques and modalities have their exponents. Yet regardless of technological sophistication each modality possesses limitations. The nature and extent of these limitations must be known in order for the surgeon to make an informed management decision. The military surgeon may also be constrained by extended evacuation times and lack of the latest technology. In this case a more pragmatic approach is advocated. This presentation reviews the evidence regarding clinical examination; diagnostic peritoneal lavage (DPL); ultra-sound (U/S) including focused assessment with sonar for trauma (FAST) and computed tomography (CT) in the evaluation and assessment of blunt trauma to the abdomen.

Water Jets: Both The Cause Of Atypical Burn Wounds And A Novel Debridement Strategy

NA Martin

High-pressure water jets have been used in various industries for many years with pressures generated sufficient to cut through steel and concrete. They are often used to clean the inside of chemical and oil storage facilities or other similarly contaminated environments. However, industrial injuries are rare because of stringent health and safety regulations. High-pressure water jets are now used for numerous commercial applications and lower-pressure domestic devices are now commonplace. Although the pressures used in these systems are lower, the lack of health and safety regulation provides opportunity for misuse. A case is presented where a young male sustained a 3% mixed depth burn of his right

upper chest, shoulder and neck following accidental exposure to the lance end of a hot water high-pressure commercial cleaning unit. There was a small penetrating wound in the centre of the burn surrounded by a 40mm diameter full thickness eschar. The surrounding area was largely mid-dermal partial thickness burn. The potential for injury was not fully appreciated until a few hours after he had presented to the emergency department when he developed surgical emphysema of his anterior chest. He underwent debridement at forty-eight hours post-injury. Wound healing was complicated by atypical wound infections. He has subsequently made a full functional recovery. While the water jet is an unusual cause of burn wounds, the use of water jets has recently found application in the debridement of various wound types, particularly burn wounds and wounds that are slow to heal. The VERSAJET™ Hydrosurgery System (Smith & Nephew, UK) uses a high velocity, high pressure water jet across a small aperture to create a low pressure field (the Venturi effect). Although there is no direct cutting surface, the suction generated by the handpiece is sufficient to debride both damaged and healthy tissue depending on the power settings, handpiece orientation and the applied pressure. A case is demonstrated where the VERSAJET™ system is used to debride a full thickness thermal burn wound with excellent cosmetic results. The potential military applications of the system should be appreciated. It is a self-contained, multifunctional unit that utilises standard theatre components, such as sterile saline, tubing and suction waste receptacles. It can clean and debride many burn wounds, both thermal and chemical (including vesicant agents), without atomising the saline and spreading chemical contamination. It can also debride other wound types effectively. These uses will be discussed briefly.

Psoas Abscess - Not As Rare As We Think?

J P Garner, PD Meiring, K Ravi, R Gupta

Background: Iliopsoas abscess is a rare condition with a reported worldwide incidence of 12 new cases per year with primary abscesses now predominating. The presentation is often vague and the diagnosis not considered. **Material and Methods:** The medical records of 15 consecutive patients presenting to our hospital in a three year period were reviewed. Demographic data, presenting features, predisposing factors and investigations performed were recorded. Abscesses were classified as primary or secondary and the treatment provided and eventual outcomes were analysed. **Results:** 15 patients (8 Males) were included. 9 patients were pyrexial on admission, 14 were anaemic and all had raised inflammatory markers. Only 5 patients

presented with the classical triad of pain, fever and limp. The mean time to diagnosis was 4.9 days with a mean hospital stay of 53.7 days (Range 7-243 days). Fourteen patients were diagnosed with a CT scan. 3 patients were treated with antibiotics alone whilst 11 received percutaneous drainage (PCD) as well. Of these, 5 had recurrence following initial drainage, needing further PCD procedures but none needed open drainage. Only one patient underwent open drainage initially. The mortality rate was 20%. **Conclusions:** The incidence of iliopsoas abscess is probably under-reported. The vague presentation leads to delays in diagnosis and increases morbidity and a high index of suspicion is the key to early diagnosis. Percutaneous drainage with antibiotics is the first line of treatment although recurrence rate is high. Open drainage allows simultaneous treatment of underlying pathology in secondary cases.

The Costs Of Ignoring Acute Cholecystectomy *SK Sood, JP Garner, J Robinson, W Barber, K Ravi*

Background: Ongoing biliary symptoms whilst waiting for elective cholecystectomy is common and may result in hospital admission, further investigation and increased hospital costs. Immediate cholecystectomy during the first admission has been shown to be both safe and

effective, even when performed laparoscopically, but is an uncommon practice amongst general surgeons in United Kingdom. This study was designed to quantify the scale of this problem in our hospital and examine its cost implications, as well as the feasibility of introducing an acute cholecystectomy service. **Methods:** The case notes of all patients undergoing cholecystectomy in our hospital between January 2004 and June 2005 were examined for demographic data, details of original presentation and details of any subsequent hospital admissions with biliary symptoms or complications whilst waiting for elective cholecystectomy. Additional bed occupancy and radiological investigations were recorded. **Results:** 259 patients (202 females) underwent cholecystectomy in the study period; 56.7% initially presented as an outpatient and only 16/147 of these cases needed admission with ongoing symptoms prior to cholecystectomy. Twenty four patients who presented acutely were subsequently readmitted and occupied 231 hospital bed days. Eighteen further ultrasound scans, 7 ERCPs, 7 MRCPs and a CT scan were undertaken. **Conclusions:** Traditional management of acute presentations of symptomatic cholelithiasis, ignoring acute cholecystectomy, generates a significant extra workload with hugely increased costs to the hospital. Where logistics allow, acute cholecystectomy is a safe and cost effective measure.