Letters

GLOMUS TUMOUR OF THE ELBOW: AN UNUSUAL CAUSE OF INTESTINAL PERFORATION

Key Words – Glomus tumour; stercoral perforation

Editor,

A 72 year-old-female presented to the Emergency Department with a twelve hour history of sudden onset generalised abdominal pain and distension. On examination she was systemically unwell and had a rigid abdomen with four-quadrant peritonism. On further questioning, she reported a 10 month history of an exquisitely tender swelling over the posterior aspect of her left elbow, which had been treated as bursitis, causing her to take excessive amounts of codeine-based analgesia.

An abdominal radiograph demonstrated faecal loading and a small pocket of free air in the left upper quadrant suggestive of pneumoperitoneum (Figure 1).

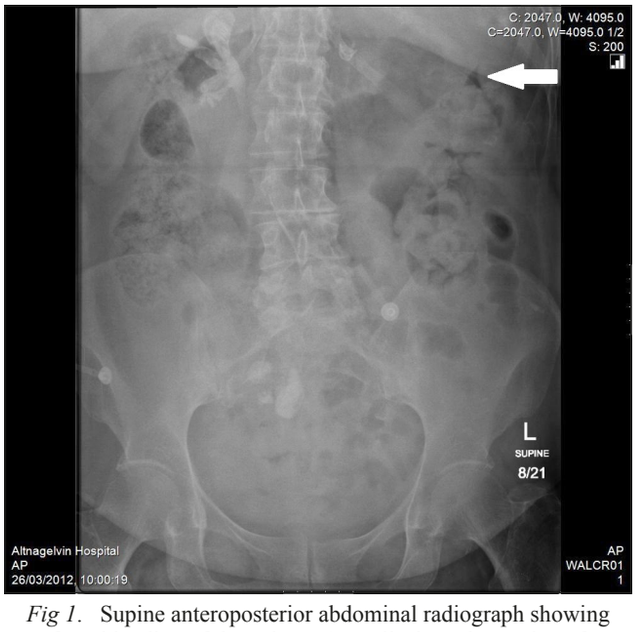

Fig 1. Supine anteroposterior abdominal radiograph showing faecal loading of the colon. A small triangular pocket of free air is evident in the right upper quadrant suggestive of pneumoperitoneum (arrowed).

An emergency laparotomy revealed a stercoral perforation of the sigmoid colon with gross faecal contamination of the peritoneal cavity. A Hartmanns procedure was performed and 38mm of colon was resected. There was no histopathological evidence of malignancy or diverticular disease in the resected specimen. Postoperatively an orthopaedic opinion was requested in relation to her left elbow swelling. An ultrasound scan revealed a 14x12x7mm localised subcutaneous lesion with increased vascularity (Figure 2).

Once fully recovered, an elective excisional biopsy of the left elbow swelling was performed under local anaesthesia. Histological analysis demonstrated morphological and immunohistochemical features in keeping with a glomus tumour (Figure 3). At review six weeks post-operatively her pain had completely resolved.

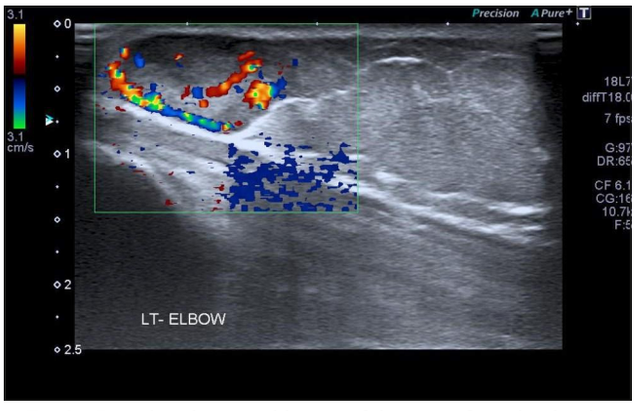

Fig 2. Doppler ultrasound image of the area of maximal point tenderness showing a well circumscribed subcutaneous lesion measuring 14x12x7mm with increased vascularity

The glomus body is a specialised arteriovenous anastomosis located in the stratum reticularis of the dermis governing flow in the cutaneous microvasculature in response to temperature. Glomus tumours are uncommon neoplasms of the glomus body consisting of glomus cells, vascular structures, smooth muscle and nerve fibres containing immunoreactive substance P [1]. They are typically benign although cases of local invasion have been reported. Metastases are exceedingly rare [2]. They are most abundant at the tips of the digits, particularly the subungual area [1]. Extra-digital cutaneous sites and extra-cutaneous sites have also been reported [3].

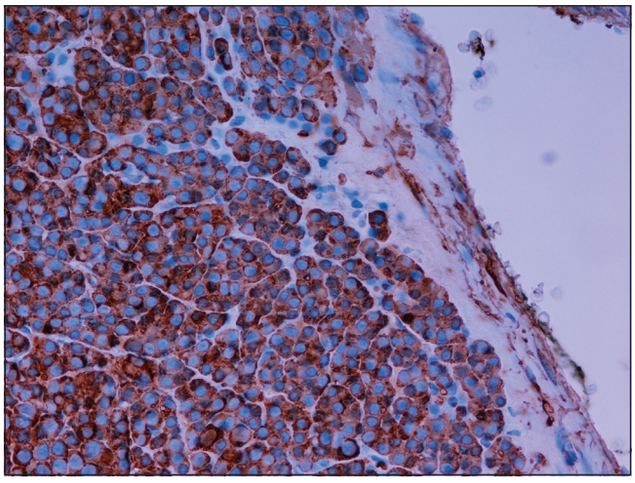

Fig 3. Histological slide showing glomus cells staining positively with smooth muscle actin (X40 magnification) in keeping with modified smooth muscle cells.

Clinically, cutaneous glomus tumours appear as solitary, small bluish subcutaneous lesions with the classic triad of point tenderness, severe pain and cold intolerance. Clinical suspicion should be increased by a positive Love test where

severe pain is elicited by applying localised pressure with a blunted point. Reduced pain when this test is repeated after the induction of transient ischaemia via a tourniquet aids the diagnosis (Hildreth's test). Duplex ultrasonography showing a well-circumscribed lesion with high vascularity and point tenderness provides good evidence towards the diagnosis. However, magnetic resonance imaging (MRI) has been deemed more sensitive for the detection of glomus tumours [4]. Treatment is by local excision.

Delayed diagnosis of glomus tumours can prolong unnecessary pain resulting in the excessive use of analgesia which may result in significant morbidity. Stercoral perforation is a rare cause of intestinal perforation with a high mortality. The association of stercoral perforation and analgesic use has previously been documented [5].

Although rare, we recommend that the diagnosis of a glomus tumour is considered in cases that present with a cutaneous swelling associated with severe pain and exquisite point tenderness. Analgesics must be prescribed with caution.

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THE MOBILE PHONE AS A TOOL IN THE ASSESSMENT OF NONSPECIFIC ABDOMINAL PAIN

Editor

Nonspecific abdominal pain (NSAP) continues to provide a diagnostic dilemma for the general surgeon. Hospitalisation is often accompanied by a series of negative investigations and prolonged inpatient stay. In an era of intense scrutiny, clinicians are perhaps increasingly reliant upon radiology and other investigations to assist in clinical judgment and decision-making. Clinical acumen, however, remains essential in the assessment of the patient. We decided to observe particular characteristics and behaviors of patients admitted with NSAP and identified the use of a mobile phone as one marker of patient well-being. We hypothesized that patients found to have a significant underlying diagnosis were not likely to be actively using their mobile phone during consultant-led consultation.

100 patients (40 male and 60 female with age range 20 – 90 years) admitted as an emergency over a 3 week period with abdominal pain were included and observations taken during the post-take consultant-led ward round. 51 patients were in possession of a mobile phone at their bedside. 13 patients (all females < 35 years) were actively using their phone during the consultation, none of whom had a cause for their pain identified that required surgical intervention despite appropriate and timely investigation. In the other 49 patients, diagnoses included cholecystitis, diverticulitis, pancreatitis, flare of inflammatory bowel disease and bowel obstruction. Patients not using a phone were more likely to require intervention (appendicectomy, laparotomy, hernia repair, abscess drainage, endoscopic retrograde cholangiopancreatography or radiologically-guided drainage). Interestingly, all of the male patients admitted had a diagnosis on discharge to explain their symptoms. Patients using their mobile phones during consultation also tended to accumulate an array of magazines at their bedside within a short period of time from admission. Older female patients and male patients tended not to have a mobile phone at their bedside. Those patients who had a serious diagnosis causing risk to life and/or requiring urgent surgical intervention did not have a mobile phone or magazine at their bedside during the study period.

Acute nonspecific abdominal pain (NSAP) is generally defined as acute abdominal pain of less than 7 days duration for which there is no diagnosis after examination and baseline investigations.[1] Hospitalization followed by active clinical observation has been the traditional approach and the most widely accepted management of patients with non-specific symptoms. The predictive value of clinical diagnosis can vary depending on the underlying cause and reaches 68% - 92%.[1] Methods used to improve diagnostic yield have included questionnaires, abdominal ultrasound, CT scanning and laparoscopy but have been relatively unsuccessful.[1] We found that young females admitted with non-specific abdominal pain and actively using their mobile phones during consultant-led ward rounds were not likely to have any significant underlying pathology requiring surgical intervention. Clinical expertise remains paramount in the assessment of a patient and in a profession where aptitude is critical, observation can tell you a lot about a patient.

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"PAEDIATRIC DNA CODING: CAN'T ATTEND, WON'T ATTEND."

Editor

Patients failing to attend for their outpatient clinic appointment is common and occurs for a variety of reasons which are frequently multi-factorial and complex. This may range from simple forgetfulness to more complicated financial and employment related issues with an average appointment costing patients £15 in lost earnings and travel costs[1]. Not only is it frustrating for clinicians attempting to efficiently run their clinics but it is estimated to take 21 minutes of a clinicians time, even when the patient does not attend[2]. Approximately 6 million appointments are missed each year in the NHS and is estimated to cost the public in excess of £700m/year[3]. Several systems have been used to improve patient attendance at clinics with varying success rates including the use of SMS reminders and appointment provision at times to suit the patient. Current practice in the NHS is for patients to be discharged back to their referrer following a failure to attend the outpatient clinic.

While this may be acceptable practice in adult medicine the authors feel that in paediatric medicine a different perspective and approach should be considered. Often the reasons for non attendance at paediatric clinics are similar to those for adults, however it is important for the clinician to be aware, that in the majority of cases the child does not make this decision. Therefore not being brought to outpatient appointments potentially puts children at risk of avoidable ill health. Recent studies have shown hospital paediatric outpatient Did Not Attend (DNA) rates of 15% occur[4].

With these figures and recent major child protection cases fresh in everyone's mind (e.g. Daniel Pelka, Baby Peter) all clinicians treating children in any outpatient setting must be alert to the possibility that a failure for children to attend their appointment may go deeper than just forgetfulness, and in fact may be a child protection issue. GMC guidance would recommend that all medical practitioners caring for children (0-18years) must safeguard and protect the health and well-being of the child[5]. It is imperative that clinicians consider the paediatric "DNA" differently, and that a system is in place to allow them to flag this up to the appropriate teams and to ensure adequate and safe follow up for each child.

The authors therefore recommend that all children are offered two appointments as standard (rather than Discharge after first DNA). But after any DNA a letter goes to the referrer stating

"Your patient was not brought to the appointment by their caregiver and no telephone call was received, one further appointment has been offered. Please review the case to ensure there are no other concerns." This provides a simple mechanism for all specialists to highlight potential child protection issues in an otherwise busy outpatient setting.

We hope that this not only will offer the caregivers of children the greatest opportunity to avail of healthcare services, but that this may also initiate a culture whereby safeguarding concerns are noted and acted upon.

The authors have no conflict of interest.

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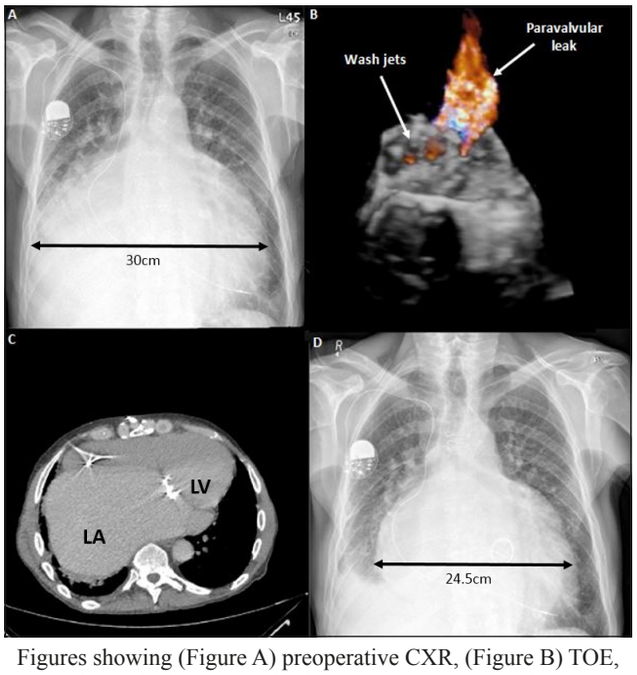
GIGANTIC LEFT ATRIUM- CAN SURGERY REVERSE THE DOWNWARD SPIRAL OF CARDIAC CACHEXIA?

Editor,

A 72 year-old male with a history of mechanical mitral valve replacement (MVR) 16 years previously, presented with cardiac cachexia, heart failure symptoms and anaemia. Chest x-ray (CXR) demonstrated a giant globular heart (Figure A) whilst transoesophageal echocardiogram found severe paravalvular leak (PVL) along ¼ of the mitral circumference (Figure B). The previous MVR utilised a continuous technique with 4 x 2/0 Prolene to secure the valve. Elevated plasma lactate dehydrogenase and lowered reticulocyte count supported the diagnosis of haemolytic anaemia from the paravalvular leak. A computed tomography (CT) scan demonstrated a gigantic left atrium, measuring 14 x 18 cm (Figure C), with no evidence of occult malignancy. Echocardiography and blood cultures were negative for endocarditis. Pulmonary function test demonstrated significant restrictive lung defect. With normal lung

parenchyma on CT chest, this was most likely due to the mass effect of the left atrium.

At surgery, the left atrium occupied the entire right basal portion of the chest, making visualisation of the mitral prosthesis difficult. The valve was excised and a size 29 St Jude mechanical prosthesis inserted using interrupted 2/0 Ethibond pledgeted sutures. One third of the left atrium was excised with the remaining portion plicated to reduce its volume, taking care not to injure the oesophagus posteriorly. The patient made a slow but uneventful post-operative recovery and was discharged at 2 weeks following surgery.



Figures showing (Figure A) preoperative CXR, (Figure B) TOE, (Figure C) CT scan and (Figure D)post-operative CXR.

At 3 months review he is gaining weight and haemoglobin remains stable. CXR demonstrated a significant reduction in heart shadow compared to previously (Figure D). This case highlights the role of concomitant left atrial reduction in addition to MVR to reduce the stagnant blood volume, improve forward flow, while also reducing the mass effect of the left atrium on the lungs.

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PLEOMORPHIC ADENOMA OF THE SOFT PALATE; AN IMPORTANT BENIGN DISEASE IN AN UNUSUAL LOCATION

Editor,

Pleomorphic adenomas are benign tumours of the salivary glands, most commonly seen in patients between the ages of forty and sixty.[1] Approximately four fifths occur in the parotid gland, and around 5% in the minor salivary glands, which includes the palate.[1] Pleomorphic adenomas are treated by surgical resection as they have the ability to become malignant and metastasise, within and beyond the head and neck regions.[1]

An 80 year old lady was referred to the ENT clinic for investigation of catarrh. General ENT examination revealed an incidental finding of an asymmetric firmness on the right side of her soft palate. The patient was unaware of such swelling and had no difficulty with speech or swallowing. Past medical history included essential thrombocythaemia, and atrial fibrillation requiring warfarinisation. This lady never smoked and did not consume alcohol beyond the recommended guidelines.

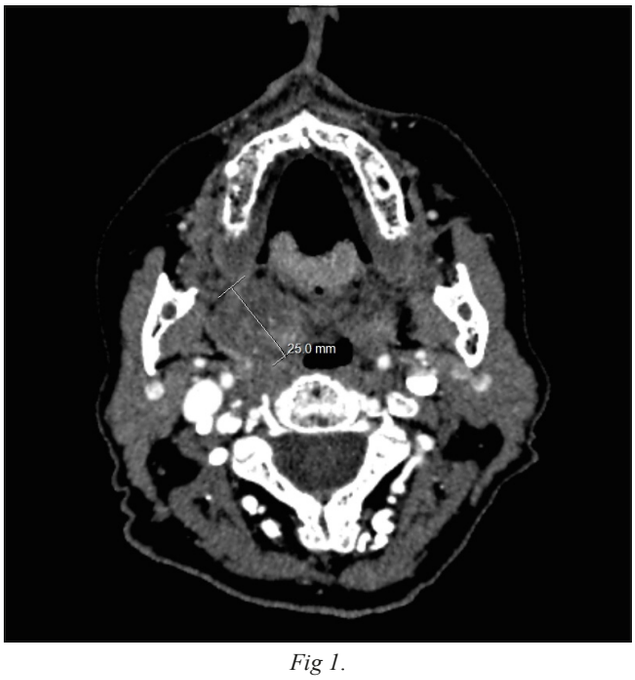

Fig 1.

CT neck with contrast was performed which revealed 2.5cm x 2.5cm x 2.6cm rounded pharyngeal soft tissue mass within the soft palate (fig 1). Biopsies were taken which revealed various cellular components. An epithelial component forming anastomosing cords and strands was identified, along with hyalinised fibrous tissue and myxoid areas within the stroma. (fig 2) These are the histopathological findings of a pleomorphic adenoma.

Although definitive treatment is surgical resection, a conservative approach was adopted given our patient's age, co-morbidities and localisation of the tumour.

Differential diagnoses for this case range from benign pathology, including odontogenic cysts, palatal abscess and mucocele, to malignant soft tissue tumours.[1]

CT and MRI are both useful radiological modalities. CT is superior in assessing erosion of tumour into nearby structures.[1,2] MRI provides enhanced delineation of tumour

extension and degree of encapsulation.[2]

Histologically cellular components of pleomorphic adenomas vary.[3] The presence of chrondromyxoid matrix is a very diagnostic finding of pleomorphic adenomas.[3] Three main groups have been recognised: myxoid (80% stroma), cellular (myoepithelial predominant) and mixed (classic) type.[1]

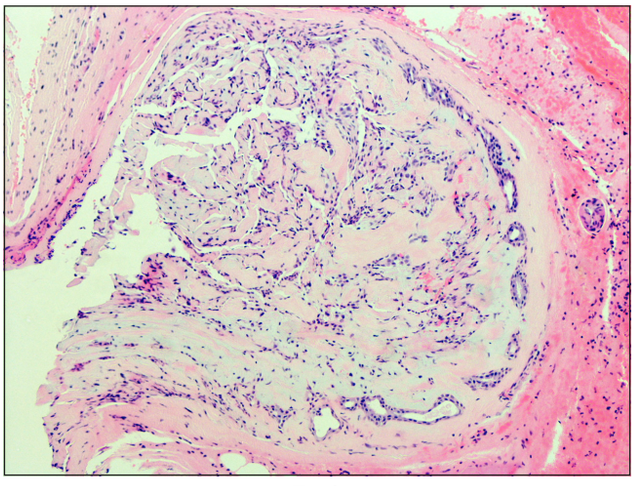

Fig 2.

Although pleomorphic adenomas are benign, they have the potential to metastasise. The time interval to metastasis from diagnosis varies; Bae et al state it ranges from three years to twenty-two years.[4] Pleomorphic adenomas can metastasise to cervical lymph nodes, within the head and neck, bone and lung.[4]

Pleomorphic adenomas can recur so adequate margins of normal tissue on resected specimens are necessary.[3] Vicente et al report between 5-30% of patients have recurrence which is usually due to inadequate margins. [5] It is recommended that patients are followed up for 10-20 years to identify recurrence.[3]

This case represents the importance of a full ENT examination for all patients, as significant pathology may be missed otherwise. Full history taking and examination have been indoctrinated from our early days of medical school. However, with time constraints and pressures of busy clinics, we must be reminded that comprehensive history taking and examinations are essential.

To the best of our knowledge, pleomorphic adenoma of the soft palate in Northern Ireland has not been previously reported.

The authors have no conflict of interests.

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MESENTERIC CASTLEMAN DISEASE

Editor,

We present a previously well 27-year-old female with three-month history of fatigue and weight loss. Investigation showed iron deficiency anaemia. HIV, hepatitis virology and liver specific antibodies were all negative.

Endoscopy was normal and CT scan showed a rounded mass measuring 5.5cm in the left side of abdomen (Figure 1). At laparotomy a smooth walled lesion measuring 6.5 x 5.5 x 4 cm was resected from the proximal small bowel mesentery.

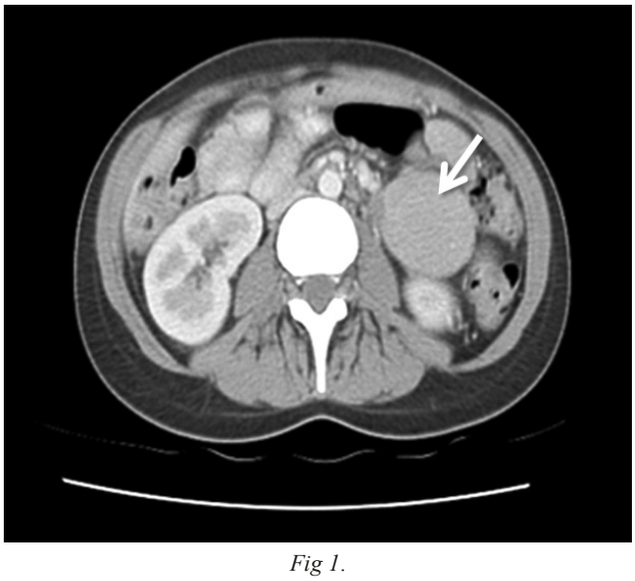

Fig 1.

Histology revealed lymphatic tissue with effacement of the normal follicular architecture and replacement by multiple atypical germinal centres. These were surrounded by concentric rings of small lymphocytes in an 'onionskin' pattern with an enlarged mantle zone. Some of these follicles had more than one germinal centre containing increased numbers of follicular dendritic cells. Others had a prominent hyalinised vasculature with a 'lollipop' configuration. Testing for Epstein Barr Virus (EBV) and Human Herpes Virus 8 (HHV8) was negative. A diagnosis of mesenteric Castleman disease was made.

Castleman disease (CD) is a rare nonclonal lymphoproliferative disorder of unknown aetiology. It has attracted attention due

to its association with HIV and HHV-8 (Human Herpes Virus) as it demonstrates a link between viral disease and malignant transformation [1]. Awareness of CD is important because the disease is potentially life threatening, is exceptionally rare and incompletely understood [2].

It is broadly classified into unicentric (e.g. single lymph node station) or multicentric and histologically into hyaline vascular (HV) variant or plasma-cell (PC) variant.

Patients with unicentric CD are mostly HIV negative, have HV pathology and do not have systemic symptoms or laboratory abnormalities [2,3]. They usually present as an incidental finding or signs and symptoms relating to site and mass effect. A study of 315 cases of unicentric CD by Testa *et al.,* found that 65% were in mediastinum, 16% in neck, 12% in abdomen, 3% in axilla and 4% in diverse locations[4]. Mesenteric Castleman disease is a very rare event with 42 cases in total reported in the English literature [5].

Approximately 10% of patients with unicentric CD have mixed HV and PC morphology. This can rarely be associated with systemic upset and laboratory findings such as anaemia, hypergammaglobulinaemias and raised inflammatory markers.

Multicentric disease patients can present with generalised lymphadenopathy, organomegaly and systemic upset such as fever, night sweats, fatigue, anorexia and weight loss [2].

The pro-inflammatory response syndrome produced in CD is caused by excess interleukin-6 (IL-6) production by B cells in the effected lymph node mantle zone. Local elaboration of IL-6 and consequent vascular endothelial growth factor (VEGF) production leads to the characteristic B-cell proliferation and vascularisation in CD [2].

This condition is very poorly characterised in the literature but should be considered when a mesenteric mass is noted on imaging. Surgical resection is curative in 95% of unicentric CD with resolution of systemic symptoms and in general the long-term prognosis in the HIV negative patient is excellent [2].

Computed tomogram demonstration a homogenous soft tissue lesion located between the tail of pancreas and the left kidney (arrowed).

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COMPLIANCE WITH NICE HEAD INJURY MANAGEMENT GUIDELINES IN A BUSY DISTRICT GENERAL HOSPITAL – IS IT ASKING TOO MUCH?

Editor,

Traumatic brain injury (TBI) is a frequent presentation to emergency departments (ED) with over one million attendances in the United Kingdom per annum, 20% requiring admission. [1]

NICE developed guidelines for the triage, assessment and management of head injuries (CG-56, 2007).[2]

The literature is sparse on the feasibility of CG-56 in a busy District General Hospital (DGH).

This retrospective review was conducted on consecutive adult patients admitted with TBI to a DGH [Daisy Hill Hospital] in Northern Ireland over a one-year period.

We assessed the initial management of these patients with reference to CG-56 guidelines i.e. frequency and "completeness" of central nervous system (CNS) observations and "timeliness" of CT brain.

Demographics; time of arrival to assessment; indication for admission; risk stratification to determine if CT was required; details of CT including urgency and abnormalities; recording CNS observations and details of patient transfer to regional neurosurgery unit were retrieved.

RESULTS:

216 patients (median age 50 years) were admitted to Daisy Hill Hospital during this period (81% male). 171 (79.2%) patients were admitted out-of-hours.

Eighty-six (41.3%) patients had recent alcohol consumption. Sixty (28.6%) were admitted due to worrying clinical signs (e.g. confusion).

821 out of 2613 sets of observations (31.4%) were complete. Almost 15% had incorrect/missing GCS scores, while SaO_2, temperature, pulse rate, pupillary response and limb movement were not recorded in 19%, 37%, 11%, 14% and 11%, respectively.

150 (69.4%) underwent a CT brain, thirty-three (22.0%) of which had abnormalities.

Sixty-four (53%) with "low probability" of TBI had a CT brain, of whom seven (10%) had an abnormality. Sixty-two (90%) patients with "high probability" of TBI had a CT, of whom 16 (25.8%) had abnormalities.

Of the initial CTs performed for 62 high risk patients, only 12 (19.4%) had their scan reported within one hour of request (CG-56 guideline).

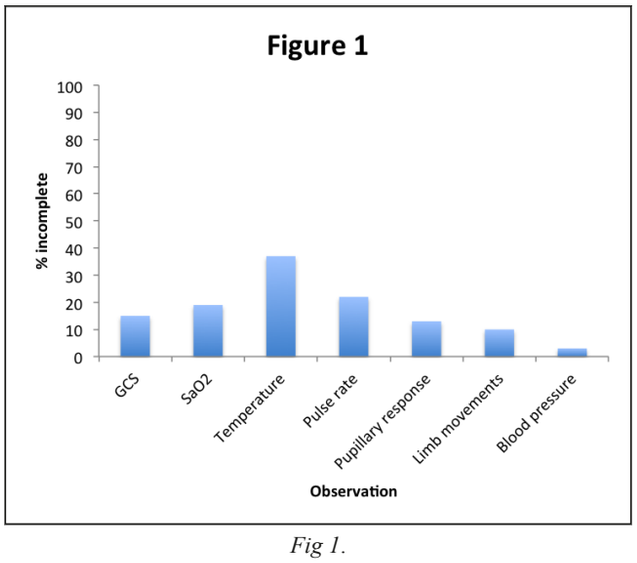

Fig 1.

DISCUSSION:

Although the CG-56 guidelines are a frame-work for professionals, there is paucity of data of their implementation at the "coalface".

Data have shown morbidity and mortality increase out-of-hours – 79% of our head injury admissions attended out-of-hours.

The accurate recording of CNS observations is considered essential for good patient care, with hypothermia, hypoxia, abnormal pupillary reaction and decreased GCS predictors of poor outcome.[3] Our study demonstrates poor compliance with CG-56 guidelines. Possible causes includes staffing pressures in the ED.

Our series has shown problems with compliance of clinical observation in a busy DGH. However, in our centre the poor compliance did *not* adversely influence patient outcome (review of data by neurosurgeon [TF]).

An extra £15,000 per 100 head injuries was spent annually in a London hospital due to increased imaging.[4] Other studies have shown increasing use of CT in the ED aids decision-making and reduces admissions, offsetting the cost of imaging.[5]

The guidelines are useful but should be re-evaluated. We suggest rigid adherence to all the GCS variables may be difficult in a busy unit with different observers leading to inter-observer variation. Selection of patients who need less frequent observations may be the way forward.

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ERRATUM

The editor has been informed that there is an error in the authorship of the following paper:

Evaluation of a Final Year Work-shadowing Attachment.
Peter Kavanagh, Mairead Boohan, Maurice Savage, David McCluskey, Pascal McKeown.
Ulster Med J 2012; 81(2): 83-88.

The first author should read: Peter McKavanagh. We apologise for any inconvenience caused.