Letters

REVIEW OF FACULTY OF MEDICAL LEADERSHIP AND MANAGEMENT (FMLM) NI CONFERENCE, "LEARNING TO IMPROVE".

Editor,

The Northern Ireland FMLM Conference held on the 12th November 2015 was a huge success, attracting the largest number of delegates nationally. With the city providing a picturesque backdrop, the conference at Belfast Castle enabled past, present and future leaders to celebrate success, discuss the challenges of our evolving health and social care system, and promote clinical leadership at all levels.

The theme of the conference, paralleling that of the 2015/16 UMS programme, - "Learning to Improve", was firmly embedded throughout the day; maintaining a strong focus on patient safety and quality improvement. Dr Cathy Jack, Regional Quality Improvement Lead for FMLM, welcomed Professor Sir Liam Donaldson, Chair of Health Policy at Imperial College, London and Chancellor of Newcastle University, to address delegates with a talk entitled "Quality and Safety in a Modern Healthcare System". Sir Liam outlined some of the challenges faced by leaders throughout the UK, describing variations in standards and coordination of care. He encouraged delegates to share outcomes and become "early adopters" of evidence, aiming for a truly patient-centred system which values quality and safety.

Coinciding with World Quality Day, Mr Simon Hamilton MLA, Health Minister for Northern Ireland, outlined his vision for ensuring the quality of health and social care services throughout the region. He acknowledged the "strong will and ambition amongst organisations and individuals to deliver on quality and to improve the experience of service users", and announced plans to implement a regional Improvement Institute. This Institute will enable a cohesive and collaborative approach to developing innovation, improvements and the sharing of best practice within Northern Ireland.

Vijaya Nath, Director of Leadership Development at the King's Fund, explored Medical Engagement, Collective Leadership and Quality Improvement, describing how to create a culture that delivers sustained high quality, safe and efficient care. She encouraged delegates to challenge culture until "the behaviour is so internalised that doctors are motivated to improve the quality of patient care - when no one is watching".

We were delighted to see such a wealth of local expertise complement the keynote speakers, with two excellent sessions comprising of five parallel workshops on quality improvement, innovation and leadership, professionalism, human factors, evidence based medicine and big data. Delegates had the opportunity to share their improvement experiences, with over forty high quality oral presentations, aligned to the strategic goals of Quality 2020.

Two panel sessions involving patient representative and clinical leaders, evoked much discussion on the theme of "Learning to Improve". Dr Michael McBride, Chief Medical Officer, UMS President and Regional Lead for FMLM, interviewed the eight Clinical Leadership Fellows in the inaugural year of ADEPT - Achieve Develop Explore Programme for Trainees. This was an exciting opportunity to explore the views of some of our clinical leaders of the future, reflecting the commitment among doctors in training to develop leadership skills.

As trainees, we were inspired by the passion and commitment of all present, and look forward to continuing to work collectively to achieve the aim that Quality 2020 set out – "to be recognised internationally, but especially by the people of Northern Ireland, as a leader for excellence in health and social care."

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WHAT'S ALL THIS ABOUT FRACKING?

Editor,

Hydraulic fracturing (Fracking) is currently attracting regular media attention because of its major geopolitical, economic, environmental and health implications. Fracking means the recovery by drilling of Shale Gas (a form of Natural Gas) by the use of water, sand and chemicals injected into Shale rock under high pressure. Shale is a highly compacted sedimentary rock requiring the Fracking technique to release Gas (or oil) in commercial quantities. The technique has been used in multiple areas (or Shale Basins) of the United States. Several areas in the island of Ireland have been identified as holding large reserves of Shale Gas, most notably the North West Carboniferous Basin covering parts of counties Leitrim, Fermanagh, Tyrone, Donegal, Cavan, Monaghan, Sligo, Mayo and Roscommon. License to frack (as distinct from conventional drilling) in Ireland and Northern Ireland has been withheld pending Government reports.

So what are the concerns about this technique? Many local communities worry about despoliation of the landscape by heavy truck traffic, drilling sites, waste water ponds, chemical contamination of water tables, air pollution and noise pollution [1].

Emissions from the fracking process contain chemicals that may have an association with birth outcomes (congenital heart and neurological defects) according to a recent report from the

Colorado School of Public Health[2]. This conclusion has been strongly challenged[3].

Fracking has been implicated in small earthquakes in Ohio (Richter Scale 2.7 to 4) and Lancashire.

The tourism industry has major misgivings about Fracking, and when one travels the quiet Border roads of west Fermanagh and north Leitrim the anti-Fracking placards protruding from the hedgerows are a reminder of continuing community concerns.

Health questions about Fracking lie frequently in the respiratory field. Use of sand in Fracking leads to exposure to crystalline Silica. In the USA exposure of fracking workers at 11 sites in 5 states exceeded occupational health criteria[4] but there have not been any reports of lung Silicosis: the mixture of sand with water may make the sand less respirable than in traditional mining workplaces. Exacerbations of Asthma and Chronic Obstructive Pulmonary Disease (COPD) due to Fracking are also considerations. There are some epidemiological reports implicating the process as a cause of Cancer[5] but so far evidence is rather thin. Fracking appears more suitable for large sparsely populated territories, rather than small scale areas with their delicately balanced ecosystems and historic sites, such as exist along the Erne and the Shannon rivers. From the health point of view it is also difficult to see how Governments can proceed to license Fracking at this time in the absence of adequate scientific information. If in due course, the Governments of Ireland and Northern Ireland grant full licenses for Shale gas drilling, it is likely to occur in the North –West Basin which straddles the Border. If so the establishment of a joint North-South Authority along the lines of the Loughs Agency may be the best way to proceed including from the environmental and health points of view.

The author has no conflict of interest.

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REFERENCES:

1. Adgate JL, Goldstein , McKenzie LM. Potential public health hazards ,exposure and health effects from unconventional natural gas development. *Environ Sci Technol*. 2014; **48(15)**:8307-20
2. McKenzie LM, Guo R, WitterRZ, Savitz DA, Newman LS, Adgate JL. Birth outcomes and maternal proximity to natural gas developments in rural Colorado. *Environ Health Perspect*. 2014;**122(4)**:412-7.
3. Fedak K, Gross S, Jacoben M, Tvermoes B. Birth outcomes and natural gas development: methodological limitations. *Environ Health Perspect*. 2014;**122(9)**:A 232.
4. Esswein EJ ,Britenstein M, Snawder J, Kiefer M, Sieber WK. Occupational exposure to respirable crystalline silica during hydraulic fracturing. *J Occup Environ Hyg*. 2013;**10(7)**:347-56
5. McKenzie LM, Witter RZ, Newman LS, Adgate JL. human health risk assesment of air emissions from development of unconventional natural gas resources. *Sci Total Environ*. 2012;**424**:79-87

GROUP A STREPTOCOCCAL PRIMARY PERITONITIS

Editor,

A 74 year old female presented to ED with acute abdominal pain on a background of vomiting and diarrhoea. Examination of her abdomen revealed generalised peritonism. She remained oliguric and hypotensive despite IV fluid resuscitation. CRP (324mg/L) and WCC (25 x10^6/L) were elevated with an associated acute kidney injury (eGFR 9ml/min). Other than a prolonged prothrombin time of 16.9s, her remaining bloods were within normal limits.

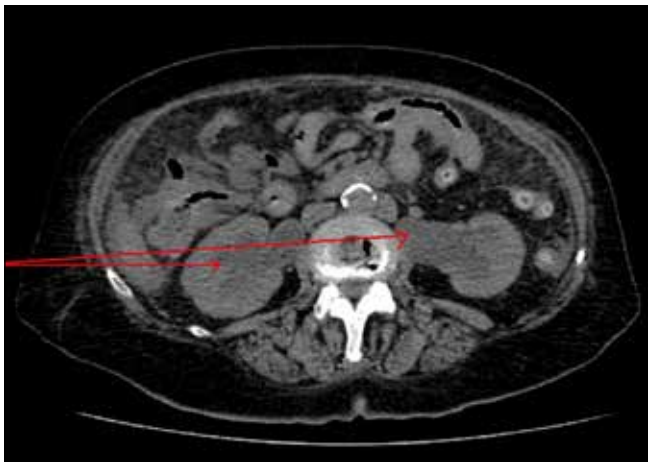

Fig 1. Image of CT AP showing bilateral hydronephrosis

An urgent CT abdomen and pelvis was performed, without contrast, which showed bilateral hydronephrosis without a clear cause and free fluid throughout the abdomen (figure 1). No pneumoperitoneum was detected.

She was transferred to a tertiary unit with specialist urology services for ongoing investigation and management. Of note, further examination demonstrated a significant procidentia and a gynaecology consultation was sought. It was postulated that this pathology could have contributed to the hydronephrosis. A vaginal pessary was inserted to reverse the prolapse.

Her abdomen remained peritonitic and she had an emergency laparotomy on the basis of clinical examination and imaging findings. Other than a bulky uterus and right ovary there was no intra-abdominal organ pathology identified. Approximately two litres of purulent fluid was drained from the peritoneal cavity and sent to microbiology for culture. A thorough diagnostic laparotomy was completed and no gastrointestinal perforation was identified.

Post-operatively she was managed in the intensive care unit, requiring multi organ support. Ultrasound imaging of her renal tracts was carried out on her first post-operative day which showed that the hydronephrosis had significantly resolved. It is likely that this was indeed secondary to the procidentia and was corrected with the insertion of the pessary. The intra-abdominal fluid had cultured Group A Streptococcus and was successfully treated with intravenous pipericillin-tazobactam. After three days she was successfully weaned from the

ventilator, her inotropic requirement ceased and her kidney function recovered to allow CRRT to be stopped. It was felt that her AKI had been multifactorial, displaying effects of pre-renal (sepsis, dehydration and hypotension) and post-renal (ureteric obstruction secondary to procidentia) insults.

Discussion:

GAS primary peritonitis is rare, but has been reported in a limited number of case reports and series[1]. It most commonly manifests in otherwise healthy females, but the entry site of the pathogen is often unclear[3,4]. Ascending urogenital tract infections, such as in this case are most common[2,3]. Spread from the bowel and from the respiratory tract has also been reported[1,3].

Many of the documented cases presented with peritonitis following a diarrhoeal illness[2]. Laparotomy, as in this case, generally shows purulent fluid within the abdominal cavity with no other organ pathology identified[2]. The mainstay of treatment is prompt resuscitation, goal-orientated organ support and intravenous antibiotics[2,3,4].

Our case highlights one possible explanation for a seemingly negative laparotomy, and the importance of sampling peritoneal fluid at the time of operation. It also illustrates how an organism which can be part of normal flora can cause a potentially life threatening infection[5].

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REFERENCES:

1. Patel RV, Kumar H, More B, Rajimwale A. Primary group A streptococcal toxic shock syndrome simulating perforated appendicitis in a previously healthy girl. *BMJ Case Rep*. 2013: May 4. doi:10.1136/bcr-2013-009502
2. Tilanus AM, de Geus HR, Rijnders BJ, Dwarkasing RS, van der Hoven B, Bakker J. Severe group A Streptococcal toxic shock syndrome presenting as primary peritonitis: a case report and brief review of the literature. *Int J Infect Dis*. 2010 **14S** 208-212
3. Haap M, Haas CS, Teichmann R, Horger M, Raible A Lamprecht G, *et al*. Mystery or misery? Primary group A Streptococcal peritonitis in women: case report. *Am J Crit Care*. 2010: **19(5)**; 454-8.
4. Moskovitz M, Ehrenberg E, Greico R, Chamovitz B, Burke M, Synder D, *et al*. Primary peritonitis due to group A streptococcus. *J Clin Gastroenterol*. 2000:**30(3)**;332-5
5. CDC. Centers for Disease Control and Prevention. [Internet]. Group A stretoccocal (GAS) disease for clinicians. Atlanta, GA: Centers for Disease Control and Prevention. Available from: http://www.cdc.gov/groupastrep/clinicians.html. Last accessed January 2016.

FINDING BRUGADA SYNDROME IN A YOUNG, ACUTE SURGICAL PATIENT.

Editor,

A 21year old male presented with a 24hour history of right iliac fossa pain and vomiting. He was afebrile, tachycardic and had raised inflammatory markers. He was otherwise fit and healthy. He was seen by surgeons and booked for emergency laparoscopic appendicectomy. He was graded ASA 1E on pre-operative assessment. NICE guidelines recommend that a patient of this age and ASA grade does not require any investigations prior to this surgery[1]. In this case, a routine admission ECG was done and showed ST elevation in V2 and V3, with T wave inversion and an RSR1 pattern in III. He reported no cardiac symptoms or background. A repeat ECG an hour later was unchanged. On further discussion, his mother reported he had two cousins who suffered cardiac arrests as teenagers and subsequently had ICDs implanted. Both cousins were diagnosed with Brugada syndrome.

Following discussions with cardiology, it was decided to treat as presumed Brugada Syndrome. Surgery was not delayed due to the risk of clinical deterioration leading to pyrexia and therefore increased risk of arrhythmia. The planned procedure was changed to open as pneumoperitoneum may cause a vagal response, precipitating an arrhythmia. Anaesthetic management was planned using www.brugadadrugs.org which has a list of safe drugs for use in Brugada patients[2]. The aim for safe anaesthesia was to avoid episodes or tachy-/bradycardia and to have external defibrillation pads attached throughout.

On arrival in theatre, he was pyrexic at 37.7C, heart rate 90bpm and blood pressure 160/85. He was pre-oxygenated and a modified rapid sequence induction using thiopentone, suxamethonium and fentanyl was performed. Induction was in theatre rather than the anaesthetic room to minimise interruption in cardiac monitoring. Sevoflurane was used for maintenance of anaesthesia and vecuronium for paralysis. Isoprenaline, the antiarrhythmic of choice in Brugada syndrome, was kept in the anaesthetic room. Intravenous co-amoxiclav was given at induction and an oropharyngeal temperature probe sited. Active management of temperature was commenced with infusion of 2litres cold plasmalyte, cold forced air blanket and diclofenac. Paracetamol had been given 2hours previously. Temperature reduced to 37.3C. Dexamethasone and ondansetron were used for antiemesis and 10mg morphine given for analgesia. During surgery multiple ectopic beats were noted and recorded on a rhythm strip. One run of approximately 5 ectopic beats was noted. At this time the patient's temperature had risen to 37.8C, coinciding with dissection of the appendix. Surgery was otherwise uneventful. At completion of the procedure, 10ml 1% lidocaine with adrenaline(1/100,000) was infiltrated locally into the wound. Bupivacaine could not be used due to its pro-arrhythmic nature as a long-acting sodium channel blocker.

Post-operatively, the patient remained on cardiac monitoring for 24hours. Recovery was incident free and he was discharged the following day, with planned cardiology follow up.

This case highlights the importance of awareness of Brugada syndrome as an anaesthetist. The pharmacological and

autonomic changes during general anaesthesia can have serious implications for a patient with Brugada syndrome, and an appreciation of how these patients are managed in the peri-operative setting is essential.

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REFERENCES

1. NICE National Instituite of Clinical Excellence. *Preoperative tests for elective surgery*. NICE clinical guideline 3: [Internet]. London: National Institute of Clinical Excellence; 2003. [updated 2013 Apr;]. Available from: http://www.nice.org.uk/guidance/cg3. Last accessed January 2016.

2. Postema PG, Wolpert C, Probst V, Borggrefe M, Roden DM, Priori SG, *et al*. Drugs and Brugada syndrome patients: review of the literature, recommendations, and an up-to-date website (www.brugadadrugs.org). *Heart Rhythm*. 2009; **6(9)**:1335-41.

SUBARACHNOID HAEMORRHAGE AND TROPONINITIS: A CASE IN POINT.

Editor,

Defining myocardial infarction increasingly relies upon the detection of cardiac biomarkers alongside clinical evidence for myocardial ischemia. Modern assays are sensitive for detection of small amounts of myocardial necrosis, with the limit of detection of a highly sensitive troponin (HsTnT assay) being as low as 0.005 ng/mL.[1] We report a case of a patient treated for myocardial infarction on the basis of an elevated troponin which was later found to be elevated secondary to a spontaneous rupture of a cerebral aneurysm.

A 66 year old female presented to the emergency department following a witnessed transient loss of consciousness, lasting for approximately ten minutes. A collateral history from her sister revealed an altered breathing pattern with no seizure activity during the collapse. At presentation, Glasgow Coma Scale (GCS) was 13/15 (E2 V5M6) with no localizing neurological signs or meningism.

On admission HsTnT was elevated at 914 ng/mL. Electrocardiograph (ECG) was normal. She was given 300mg of oral Aspirin for possible myocardial infarction. In view of her GCS, she proceeded to a computed tomography (CT) scan of the brain which showed dilatation of the lateral ventricles with high density material in both lateral ventricles, posterior to the left anterior clinoid and left Sylvian fissure (figure 1). CT angiogram showed an aneurysm arising from the supraclinoid portion of the left internal carotid, close to the origin of the posterior communicating artery.

She proceeded to urgent neurosurgical intervention with multiple coils placed within the aneurysm. She made a full recovery with no long term neurological sequel.

Discussion

HsTnT is increasingly recognised for its importance in helping diagnose myocardial infarction, however, it must be remembered, whilst sensitive for myocardial injury it is not specific. There are numerous non-cardiac causes for a troponin rise including renal insufficiency, burns and sepsis/ critical illness.

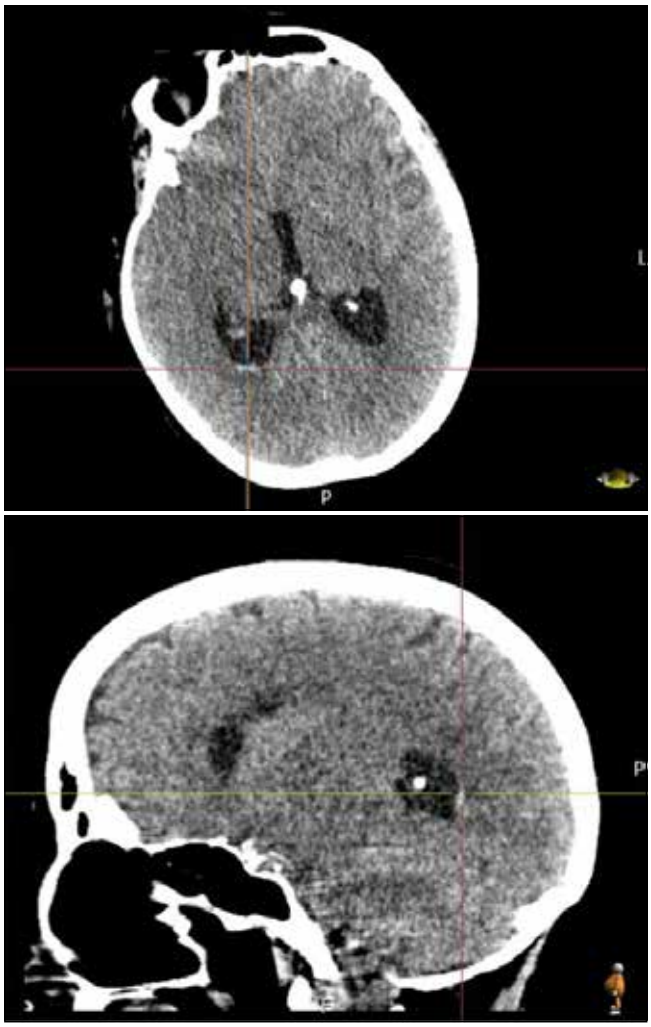

Fig 1. CT brain cross sectional images showing, high density material in the dependent part of right lateral ventricle (at centre of crosshairs).

Subarachnoid haemorrhage (SAH) accounts for 10% of all haemorrhagic strokes, with elevation in troponin being a recognised complication and associated with increased risk of cardiopulmonary and cerebrovascular complications.[2] A case series involving 149 patients with either acute ischaemic or haemorrhagic stroke, found 27% of patients to have an elevated troponin level.[3] In another case series of 223 patients with acute SAH, 20 % of patients had an elevation in troponin which appeared to be a predictor of poorer outcomes.[4]

ECGs performed in SAH patients can also show a range of abnormalities such as ST segment elevation, T-wave inversion, atrial and ventricular arrhythmias. ECGs changes in SAH have a reported prevalence ranging between 27% to 100%.[5]

The mechanism for elevation in troponin in this setting is uncertain, but is thought to be related to excessive sympathetic activity and increased catecholamine release resulting in increased stress/demand on myocardial cells.

In summary, elevated HsTnT is not specific for myocardial infarction and raised HsTNT and ECG changes are not uncommon in SAH. Interpreting HsTNT and ECGs out of clinical context may lead to diagnostic problems.

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REFERENCE

1. Saenger AK, Beyrau R, Braun S, Cooray R, Dolci A, Freidank H, Glannitsis E, *et al*. Multicenter analytical evaluation of a high-sensitivity troponin T assay. *Clin Chim Acta*. 2011;**412(9-10)**:748–54.
2. van der Bilt IA, Hasan D, Vandertop WP, Wilde AA, Algra A, Visser FC, *et al*. Impact of cardiac complications on outcome after aneurismal subarachnoid haemorrhage: a meta-analysis *Neurology*. 2009:**72(7)**:635-42.
3. Trooyen M, Indredavik B, Rossvoll O, Slordahl SA. [Myocardial injury in acute stoke assessed by troponin I. *Tidsskr Nor Laegeforen*. 2001:**121(4)**:421-5. Norwegian
4. Tung P, Kopelnik A, Banki N, Ong K, Ko N, Lawton MT, *et al*. Predictors of neurocardiogenic injury after subarachnoid hemorrhage. *Stroke*. 2004; **35(2)**:548-51.
5. S.Chatterjee. ECG changes in subarachnoid haemorrhage: A synopsis. *Neth Heart J*. 2011: **19(1)**;31-34

THE GYNAECOLOGICAL APPROACH TO DISTAL BICEPS TENDON REPAIR:

A PREVIOUSLY UNREPORTED SURGICAL ADJUNCT /TECHNIQUE

Editor,

Distal Biceps tendon ruptures account for 3% of all tendon ruptures, with an overall incidence of 1.2 per 100,000 per year.[1] The two-incision approach to surgical repair, described by Boyd and Anderson is the preferred method in our unit.[2] However, this may be complicated by heterotopic ossification (HO) leading to the formation of a radioulnar synostosis.[3] This is attributed to soft tissue trauma, aggressive elevation of anconeus off the proximal ulna and injury to the proximal interosseous membrane.[3]

We describe a previously unreported technique, using gynaecological cervical dilators to gradually reopen and develop the distal biceps tendon tract resulting in less soft tissue trauma than conventional means.

TECHNIQUE

First, a proximal 3cm transverse incision is made in the antecubital fossa over the distal biceps tendon sheath. The distal biceps tendon is identified and whip sutures applied (Figure 1).

Fig 1. Whip sutures

The tunnel through which the tendon traverses is identified. The narrowest diameter cervical dilator is then inserted into the tunnel and empty tendon sheath (Figure 2). It is directed towards and then past the radial tuberosity between the radius and the ulna. Rotation of the forearm confirms proper placement of the dilator on the ulnar side of the radius. With the forearm in full pronation, the dilator is advanced until it is palpable within the subcutaneous tissue of the forearm. The distal incision is then made over the site of prominence, splitting the common extensor and supinator muscles to identify the end of the dilator (Figure 3).

Fig2.

Fig3.

The diameter of the tunnel is then gradually increased in size by sequentially passing dilators of increasing diameter, until a tract is created that will easily allow passage of the often bulbous tendon (Figure 4). The tendon is then shuttled through the dilated tract and reattached to the exposed radial tuberosity (Figure 5).

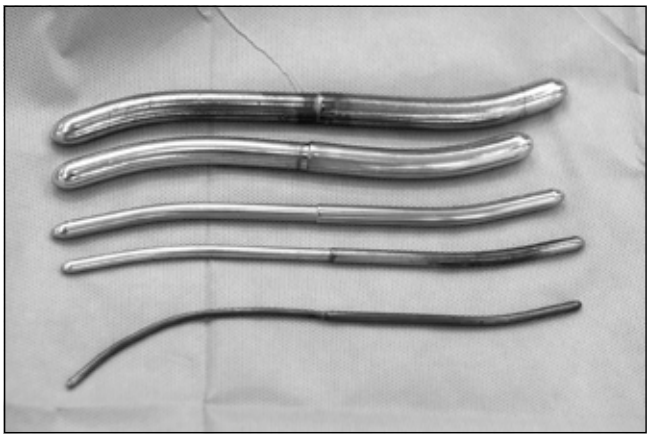

Fig4.

Fig5.

DISCUSSION

Surgical repair is the treatment of choice for distal biceps tendon ruptures. Overall patients return to pre-injury activities and regain upper extremity motion and function, with only small measurable differences in power and fatigability from pre-injury state.[4]

The two-incision technique reduces the risk of neurological injury that was observed with the Dobbie one-incision approach.[3] However, HO and radioulnar synostosis formation is estimated at 7%.[3] This is a debilitating complication when surgery, performed to restore elbow flexion and forearm supination strength, results in a complete loss of forearm rotation.[3]

In patients presenting late (after three weeks from injury) the tendon tract has often contracted at the time of surgery. Recreating a tract often results in significant injury to the surrounding soft tissues. This is in agreement with Kelly *et al* who concluded that morbidity from distal biceps tendon repairs may be attributed primarily to a delay in the timing of the repair.[5]

The use of cervical dilators allows a gradual increase in size when developing the original tendon tract. The curved shape and blunt tip are features that allow for a minimally traumatic recreation of the distal biceps tendon tunnel.

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REFERENCES

1. Safran MR, Graham SM. Distal biceps tendon ruptures: incidence, demographics, and the effect of smoking. *Clin Orthop Relat Res*. 2002;(**404**):275-83.
2. Boyd HB, Anderson LD. A method for reinsertion of the distal biceps brachii tendon. *J Bone Joint Surg Am*. 1961;**43(7)**:1041-3.
3. Watson JN, Moretti, VM, Schwindel L, Hutchinson MR. Repair techniques for acute distal biceps tendon ruptures: a systematic review. *J Bone Joint Surg Am*. 2014;**96(24)**:2086-90.
4. Nesterenko S, Domire ZJ, Morrey BF, Sanchez-Sotelo J. Elbow strength and endurance in patients with a ruptured distal biceps tendon. *J Shoulder Elbow Surg*. 2010;**19(2)**:184-9.
5. Kelly EW, Morrey BF, O'Driscoll SW. Complications of repair of the distal biceps tendon with the modified two-incision technique. *J Bone Joint Surg Am*. 2000**;82-A(11):**1575-81.

PAEDIATRIC MENTORSHIP PROGRAMME IN NORTHERN IRELAND –A 'HANDS OFF' APPROACH

Editor

A mentor is defined as someone who helps another person through an important transition[1]. Peer mentoring occurs between individuals of equal status allowing shared insights, guidance, problem solving and support [2,3]. A recent paper by Eisen et al. supported the use of peer mentoring in paediatrics[4].

With the potential advantages of mentorship in mind, the School of Paediatrics and Child Health in Northern Ireland implemented and evaluated a peer mentorship programme.

Each ST1 was automatically enrolled to participate in the mentorship programme and was paired with a senior trainee (ST4 and above). The programme ran from August 2014 to July 2015

This was a matched process with each mentor submitting a report, which included career goals and hobbies. The mentees shortlisted three candidates. Where possible the pairing would not work in the same hospital, aiming to prevent the overlapping of the mentor role with the role of a supervising senior trainee.

All participants were emailed a mentorship guide. This

detailed the mentorship process with explanation of roles and responsibilities, taking the place of more formal education.

A questionnaire was emailed at the end of the project via survey-monkey. The questionnaire was designed by the authors and predominantly based on 5-point Likert scale with space for comments. A reminder email was sent 2 weeks after the first.

The 17 mentees were successfully paired with one of their three selected mentors. 10 (59%) mentors and 9 (53%) mentees completed the end of programme survey.

All mentors would get involved in a mentorship programme again noting an improvement in coaching/mentoring skills (60%), leadership skills (20%), networking skills (20%) and improved knowledge of the issues faced by junior colleagues (60%). 80% of mentors felt their mentee failed to engage with the programme. All mentors agreed that an introductory evening would be beneficial and 90% agreed that there should be some form of mandatory training for this programme.

63% of mentees agreed that they found the programme valuable and 88% would recommend it to a colleague. 67% of mentees felt that their mentor had engaged well with the programme with 90% reporting a face-to-face meeting. The mentees felt this programme improved their networking skills (50%), leadership skills (33%), communication skills (18%), and understanding of issues faced by senior colleagues (50%). 76% agreed that an introductory evening would be beneficial. 33% commented that the pairing would benefit if the participants worked in the same hospital.

The topics discussed in the mentor pairing included career development (50%), work-life balance (50%), postgraduate exams (50%), clinical skills (50%), relationship with colleagues (17%), ill health (17%) and personal issues (17%). (chart 1)

There were some limitations to this project. The questionnaire used was not validated and the response rate may imply the results obtained are not representative of the population.

The results of this programme would suggest that there is a desire for mentorship from both the junior and senior trainees but that there may be difficulty in establishing the relationship without support. Based on the results, there are plans for an introductory evening with formal education for those who are acting as mentors. The junior trainees will have a formal induction into the programme. Pairings will also be permitted to occur in the same hospital.

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REFERENCES

1. McKimm, J. Jollie C, Hatter M. *et al*. *Mentoring: theory and practice*. In: NHS. Multiprofessional Faculty Development. Understanding learning and teaching. Iimperial College London; 2007. Available from: http://www.faculty.londondeanery.ac.uk/e-learning/feedback/files/Mentoring_Theory_and_Practice.pdf. Last accessed January 2016.
2. Bussey-Jones J, Bernstein L, Higgins S, Malebranche D, Parajape A, Geao I, *et al*. Repaving the road to academic success: the IMeRGE approach to peer mentoring. *Acad Med*. 2006;**81(7)**:674–9.
3. Ramani S, Gruppen L, Kachur EK. Twelve tips for developing effective mentors. *Med Teach*. 2006: 28(5); 404–8
4. Eisen S, Sijhani S, Brightwell A, Stoneham S, Long A. Peer mentoring: evaluation of a novel programme in paediatrics. *Arch Dis Child*. 2013: 23 Oct; doi:10.1136/archdischild-2013-304277

