We present two cases of PVM; one associated with underlying cutaneous melanoma and one with primary breast carcinoma.

The first case was a 68-year-old lady (Figure 1) who presented with a one-year history of gradually decreasing vision bilaterally. She had a background of grade III ductal breast carcinoma, diagnosed five years previously. This was treated with mastectomy, chemotherapy and radiotherapy. At presentation her vision was RE 6/12, LE 6/15.



The second case was a 48-year-old lady who presented with bilateral visual distortion and gradually increasing blurred vision over 1 year. She had a medical history of malignant melanoma diagnosed 4 years before and treated with surgical resection and chemotherapy. At presentation to the ophthalmic team her vision was 6/6 right eye, 6/12 left eye. On retinal examination both cases revealed multifocal yellow-orange vitelliform lesions.

Prompt recognition of the clinical appearance of PVM can facilitate early investigation of underlying malignancy and metastases and it must be remembered that PVM may be the presentation of a distant primary malignancy. In the first case described here, there is currently no evidence of underlying metastases; this patient remains under close monitoring. Unfortunately, there is evidence that PVM is a poor prognostic indicator, with most patients having metastatic disease diagnosed shortly after presentation and succumbing to this from months to four years after presentation with PVM³.

REFERENCES:

- Rees JH. Paraneoplastic syndromes: when to suspect, how to confirm, and how to manage. *J Neurol Neurosurg Psychiatry*. 2004;**75(Suppl** 2):ii43-50.
- Darnell RB, Posner JB. Paraneoplastic syndromes involving the nervous system. N Engl J Med. 2003;349(16):1543–54.
- Rahimy E, Sarraf D. Paraneoplastic and non-paraneoplastic retinopathy and optic neuropathy: evaluation and management. *Surv Ophthalmol*. 2013;**58**(5):430–58.

THE CHALLENGE OF ACHIEVING ADEQUATE ORAL IMMUNOSUPPRESSION IN A RENAL TRANSPLANT RECIPIENT WHO DEVELOPS SHORT BOWEL SYNDROME (SBS)

Editor,

A 39-year-old male with a renal transplant was admitted to

hospital with abdominal pain and vomiting. A computed tomography (CT) scan of abdomen showed ischaemic large bowel. He proceeded to a laparotomy with ileocaecal resection and right hemicolectomy. 2 days later he had worsening abdominal pain and a repeat CT abdomen demonstrated ischaemic small bowel. He had a further laparotomy, small bowel resection and end ileostomy, leaving only 1 metre of small bowel distal to the duodenal-jejunal flexure. 12 days later there was recurrence of small bowel ischaemia and a further 20cm of distal ileum was removed, leaving only 80cm of small bowel. Initial post-operative immunosuppression was established with intravenous (IV) hydrocortisone and IV cellcept, with no impairment in graft function.

The clinical challenge was how to achieve adequate oral immunosuppression in a patient with only 80cm of small bowel, presuming drug absorption from the gastrointestinal tract is significantly reduced.

Animal studies demonstrate tacrolimus absorption is predominantly in the upper part of the small intestine¹ and the colon². On review of the literature there are multiple cases which describe the use of tacrolimus in SBS, in both kidney³ and other solid organ transplants^{4,5}. Interestingly, adequate tacrolimus levels can be achieved in the presence of a jejunostomy⁴ and even in complete absence of small bowel⁵.

We stopped cellcept, commenced oral tacrolimus (Prograf) and converted IV hydrocortisone to oral prednisolone. Tacrolimus absorption was monitored with blood trough levels (target trough 5-10 μ g/L). The patient was initially commenced on Prograf 5mg BD (0.15mg/kg). The first trough level was 12 μ g/L. After a period of elevated levels the dose was reduced to a maintenance dose of 1.5mg BD and this remained stable for many months

7 months later he underwent surgery to reverse the ileostomy. After reversal surgery, tacrolimus trough levels rose to 14-18 μ g/L and Prograf dose was reduced to 1mg BD, maintaining stable trough levels 4-8 μ g/L. There were no concerns regarding medication compliance with this patient. It is noteworthy that with ileostomy reversal, trough levels rose significantly. This supports observations in animal studies of further tacrolimus absorption in the colon².

This case reminds us of the challenge of attaining adequate oral immunosuppression in renal transplant recipients who develop SBS. Tacrolimus can be used in this situation. Trough levels should be monitored and the dose adjusted in line with the surgery performed.

McCloskey OM. Woodman A. Mitchell A. Smyth J

Renal Unit, Ulster Hospital Dundonald. Belfast. Northern Ireland.

E-mail: Oonagh.mccloskey@westerntrust.hscni.net

REFERENCES

 Rogers CC, Alloway RR, Alexander JW, Cardi M, Trofe J, Vinks AA. Pharmacokinetics of mycophenolic acid, tacrolimus and sirolimus after gastric bypass surgery in end-stage renal disease and transplant patients:



UMJ is an open access publication of the Ulster Medical Society (http://www.ums.ac.uk).

The Ulster Medical Society grants to all users on the basis of a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Licence the right to alter or build upon the work non-commercially, as long as the author is credited and the new creation is licensed under identical terms.

a pilot study. Clin Transplant 2008; 22(3): 281-91.

- Nishi K, Ishii T, Wada M, Amae S, Sano N, Nio M, *et al.* The colon displays an absorptive capacity of tacrolimus. *Transplant Proc.* 2004; 36(2): 364-6.
- 3. Patel N, Smith S, Handa A, Darby C. The use of oral tacrolimus in a case of short bowel syndrome. *Transpl Int* 2004; **17**(1): 44-5.
- 4. Hasegawa T, Nara K, Kimura T, Soh H, Sasaki T, Azuma T, *et al.* Oral administration of Tacrolimus in the presence of jejunostomy after liver transplantation. *Ped Transplant*. 2001; **5**(**3**): 204-209.
- Novelli M, Muiesan P, Mieli-Vergani G, Dhawan A, Rela M, *et al*. Oral absorption of tacrolimus in children with intestinal failure due to short or absent small bowel. *Transplant Int*. 1999; **12(6)**: 463-5.

A CALCANEUS FRACTURE WITH INTERPOSED FLEXOR HALLUCIS LONGUS TENDON; A SURGICAL TIP TO AID TENDON REDUCTION

Editor,

Controversy still exists in the treatment of Os Calcis fractures. However, if surgical fixation is indicated the extended lateral approach is commonly used but an incarcerated flexor hallucis longus (FHL) tendon can block reduction of medial fracture fragments. We describe a simple, novel technique to aid reduction and help prevent FHL tendon interposition.

INTRODUCTION:

Os Calcis fractures typically occur in young, working-age adults after a fall from height¹. They make up 1-2% of all fractures². These injuries are often associated with extended recovery periods and can result in long-term morbidity including residual pain and loss of function.3 Controversy still exists with regards to operative vs conservative management for these complex fractures.^{1,4,5} A recent large, pragmatic, randomised controlled trial concluded that operative treatment compared with non-operative care showed no symptomatic or functional advantage after two years in patients with displaced intra-articular fractures.² However, many foot and ankle surgeons believe that with careful patient selection open reduction internal fixation (ORIF) of these fractures can restore mechanical alignment and restore subtalar articular congruity. In particular, fractures with incarcerated tendons are considered to be an indication for surgical treatment. The extended lateral approach is commonly used for ORIF but an incarcerated FHL tendon can block reduction of medical fracture fragments. We describe a simple and novel technique to aid reduction and help prevent FHL tendon interposition.

PRESENTATION

A 25 year old male was admitted with a displaced intraarticular calcaneal fracture following a fall from height. (Fig. 1) An incarcerated FHL tendon was suspected on the CT scan preoperatively. ORIF using a contoured locking plate was carried out through a standard extended lateral incision. Intraoperatively it was noted the fracture was difficult to reduce and the FHL tendon interposition was confirmed, from the lateral side, as the cause. To extricate the tendon from the fracture a small medial skin incision was made (approx. 3-4



Fig 1. Injury Radiograph, showing a communicated os calcis fracture

fracture millimetres) and a MacDonald's dissector was introduced through the incision and used to manipulate the FHL tendon. See Fig. 2 for pre insertion of the MacDonald and Fig. 3 for the reduced tendon. As a result of this simple technique the fracture was easily reduced with no significant intraoperative delay or operative morbidity.

FOLLOW --UP

At a 3 month review the patient was pain free with reduced subtalar movement. Radiographs were satisfactory. At this stage he was allowed to wean out of his aircast boot and into normal footwear.

At a review 8 months post-surgery making a very good steady progress. Alignment is maintained and function is improving. There is no subtalar movement, however this was expected given the fracture pattern.

CONCLUSION

The MacDonald's dissector is a versatile surgical instrument. For this case if open reduction of the FHL tendon was considered there would have been an extensive lateral

The Ulster Medical Society grants to all users on the basis of a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Licence the right to alter or build upon the work non-commercially, as long as the author is credited and the new creation is licensed under identical terms.



UMJ is an open access publication of the Ulster Medical Society (http://www.ums.ac.uk).