

Search outcome

Seventy eight papers found of which 70 were irrelevant and five were of insufficient quality for inclusion; the remaining papers are shown in table 1.

Comment

Two randomised controlled trials (RCTs) and one review have been listed. The better evidence is from the RCTs since both the study selection and the statistical analysis of pooled results in the quantitative review are open to criticism. Although minor complications were more common in operatively treated patients this did not affect later outcome, whereas

repeat rupture and tendon lengthening occurred more often in the conservatively treated patients.

Clinical bottom line

On current evidence operative repair is preferable.

- 1 Nistor L. Surgical and non-surgical treatment of Achilles tendon rupture. A prospective randomized study. *J Bone Joint Surg Am* 1981;63:394-9.
- 2 Cetti R, Christensen SE, Ejsted R, *et al.* Operative vs nonoperative treatment of Achilles tendon rupture. A prospective randomized study and review of the literature. *Am J Sports Med* 1993;21:791-9.
- 3 Lo IKY, Kirkley A, Nonweiler B, *et al.* Operative versus nonoperative treatment of acute Achilles tendon rupture: a quantitative review. *Clin J Sports Med* 1997;7:207-11.

Treating avulsion fractures of the base of the fifth metatarsal

Report by Bruce Martin, *Clinical Fellow*

Search checked by Kevin Mackway-Jones, *Consultant*

Clinical scenario

A 38 year old woman presents to the emergency department after an inversion injury of the right ankle. Clinical examination and radiography confirm that there is an avulsion fracture at the base of the fifth metatarsal. You wonder whether immobilisation in a plaster cast is better than simple support bandaging.

Three part question

In [an adult with an avulsion fracture at the base of the fifth metatarsal] is [immobilisation in a below knee cast better than simple support bandaging] in [controlling symptoms and speeding time to functional recovery]?

Search strategy

Medline 1966 to 12/98 using the OVID interface. [{metatars\$.mp AND fifth.mp} AND {exp fractures OR fracture\$.mp}] LIMIT to human and english language.

Search outcome

Eighty two papers found of which 77 were irrelevant to the study question and four were of insufficient quality for inclusion; the remaining paper is shown in table 2.

Comment

This is the only trial identified in this area and it has a number of weaknesses. Further well designed and executed studies are warranted.

Clinical bottom line

On current evidence simple support bandages are the treatment of choice.

- 1 Wiener BD, Linder JF, Giattini JF. Treatment of fractures of the fifth metatarsal: a prospective study. *Foot Ankle Int* 1997;18:267-9.

Table 2

| Author, date, and country | Patient group | Study type (level of evidence) | Outcomes | Key results | Study weaknesses |
|--|--|--------------------------------|--|--|--|
| Wiener <i>et al</i> , 1997, USA ¹ | 89 consecutive patients with avulsion fractures of the base of the fifth metatarsal Short leg cast <i>v</i> soft (Jones) dressing Followed up at 2, 4, 8, and 12 weeks | PRCT | Time in support Modified foot score (pain, gait, function, walking distance) Time to full activity Time to bony healing | No significant difference No significant difference Significantly shorter in soft dressing group 33 <i>v</i> 46 days ($p < 0.05$) No significant difference | No power study Not blinded. 33% drop out rate |

PRCT=prospective randomised controlled trial.

Magnetic resonance imaging in acute knee haemarthrosis

Report by Ashes Mukerjee, *Research Fellow*

Search checked by Kevin Mackway-Jones, *Consultant*

Clinical scenario

A young man comes into the emergency department after sustaining a knee injury while playing football. Examination reveals a tense

haemarthrosis; there is no evidence of fracture on radiography. You wonder whether magnetic resonance imaging (MRI) would be better than an arthroscopy to establish a diagnosis.

Three part question

In [young adults with acute knee haemarthrosis with no obvious fracture] is [early MRI better than arthroscopy] in [diagnosing intra-articular pathology]?