Insertional achilles tendinopathy management: a systematic review

Kearney R, Costa ML

CRD summary
The authors concluded that conservative treatment for insertional tendinopathy of the Achilles favoured eccentric loading and shock wave therapy, but there was limited evidence to assess their effectiveness. The effectiveness of operational interventions remained inconclusive. There was a lack of detailed information on study results and no statistical comparisons; the authors' conclusions seem to reflect the limitations of the evidence.

Authors' objectives
To evaluate the effectiveness of treatments for insertional tendinopathy of the Achilles on patient-reported pain and functional outcome.

Searching
MEDLINE and The Cochrane Library were searched to August 2009; search terms were reported. A manual search of references from identified papers was undertaken. The search was not restricted by language.

Study selection
Eligible studies evaluated a treatment for patients with clinically diagnosed insertional tendinopathy (through confirmation of posterior heel pain located at the bone-tendon junction) and were of any type of study design except single-case studies, narrative reviews, technical notes and letters/personal opinion. Eligible studies had to differentiate between insertional and mid-substance tendinopathy. Functional outcomes or pain scores had to be reported.

The included studies evaluated adults of all ages whose symptom durations ranged from six weeks to longer than six months. Interventions included decompression of the retrocalcaneal bursa and the superior calcaneal tuberosity, surgical reconstruction, eccentric training programme, debridement with no/partial detachment of the tendon, shock wave therapy, retrocalcaneal decompression, sclerosing therapy and a central tendon splitting approach. Where comparative treatments were evaluated, these included shockwave therapy, debridement with complete detachment and standard practice (non-operative management).

Two reviewers independently assessed the papers for inclusion. Any differences were resolved by discussion.

Assessment of study quality
Quality criteria included method of recruitment, outcome measures used, confounding factors and numbers of patients followed up. For the RCT reported in the review, the authors reported on clarity of inclusion criteria, method of randomisation, blinding, sample size calculation and validity of the outcome score.

Data extraction
Data were extracted by one reviewer and checked by a second.

Methods of synthesis
Differences between the studies precluded direct comparisons. The papers were summarised in a narrative synthesis by type of management (operative or non-operative).

Results of the review
Eleven studies were included in the review (402 patients): one randomised controlled trial (RCT) (50 patients) and 10 case-series (352 patients). Follow-up ranged from 12 weeks to 20 months.

Six case series evaluated operative management following failed conservative management and the authors of these studies reported "good-excellent" outcomes for pain and/or function measures. The authors of the systematic review reported that these studies were limited by their study design.

Five studies (four case series, one RCT) evaluated non-operative management (the RCT compared traditional eccentric...
loading with shockwave treatment but did not report comparative results). Another study reported significant decreases in pain in the shockwave group compared to the standard group. Results from these studies were generally positive, but details were not reported.

**Authors’ conclusions**
Practice for conservative treatment favoured eccentric loading and shock wave therapy, but there was limited evidence to assess their effectiveness. The effectiveness of operational interventions remained inconclusive.

**CRD commentary**
The review question and inclusion criteria were clear. The search was limited to two databases and there was no indication that unpublished material was sought, so relevant studies may have been missed. Two reviewers were involved in the systematic review process, which minimising reviewer error and bias.

The authors assessed some aspects of study validity and considered quality when reporting results. Detailed information on study quality was reported only for the RCT. The lack of details of results and statistical comparisons from other studies may have been due to shortcomings of the original papers. It appeared that the studies were appropriately summarised in a narrative synthesis.

There was a lack of detailed information on study results and no statistical comparisons and the authors’ conclusions seem to reflect the limitations of the evidence.

**Implications of the review for practice and research**
**Practice:** The authors stated that conservative treatments should be tried prior to operative interventions. This implication did not follow directly from the results of the review, which considered the two types of intervention separately.

**Research:** The authors did not state any implications for research.

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