

Appendix 2: Literature review

We performed an English-language literature review of randomized controlled trials of treatments for chronic Achilles tendinopathy. To be included, a study had to be a single- or double-blind randomized controlled trial of patients with chronic midportion Achilles tendinopathy. We included exercise trials that were single- as opposed to double-blind in design because exercise is a key component of management for chronic Achilles tendinopathy. We excluded the following: pilot studies; dosing studies; studies without a placebo or appropriate control; trials that did not document the length of symptoms or trials that included both acute and chronic tendinopathy; trials of patients with Achilles tendon rupture, partial rupture or insertional problems; and studies that did not evaluate tendon pain as a primary or secondary outcome measure.

We searched Ovid MEDLINE (1950 to August 2010) using a strategy combining terms related to Achilles tendinopathy with a search string for randomized controlled trials:

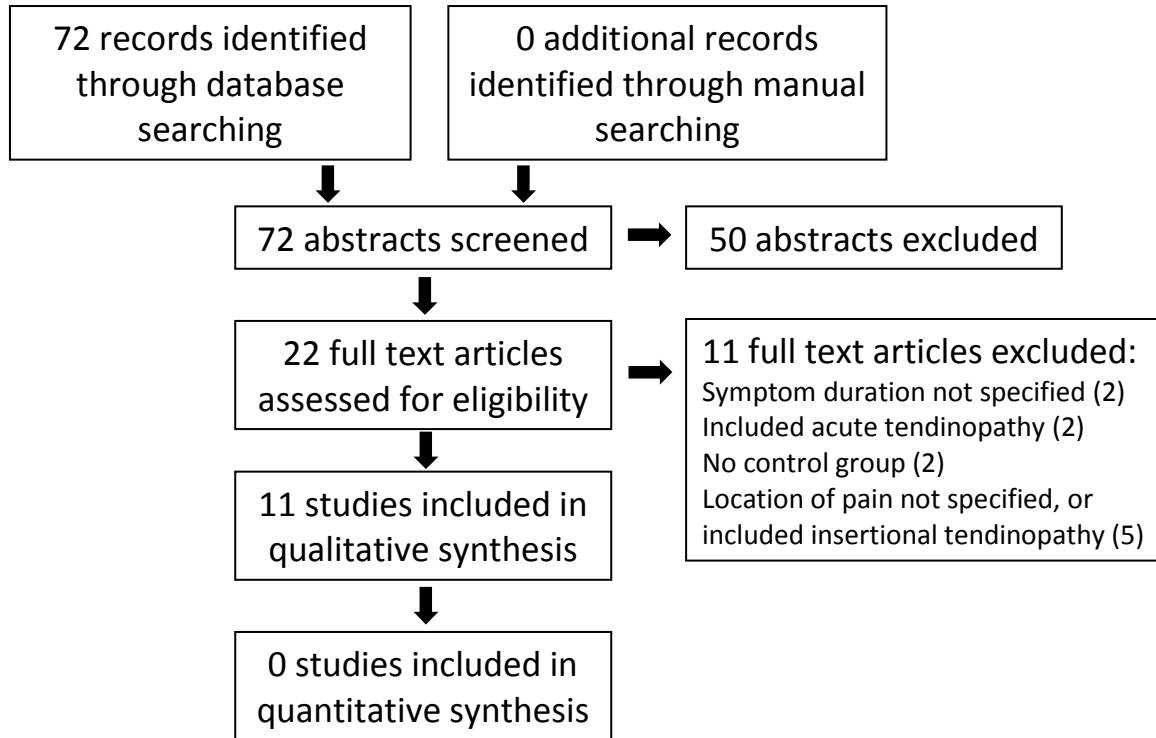
- Search “Randomized Controlled Trials”[MeSH] OR “Single-Blind Method”[MeSH] OR “Double-Blind Method”[MeSH] OR “Random Allocation”[MeSH] OR “clinical trial” [keyword] OR “controlled trial” [keyword]
- Search “Achilles Tendon” [MeSH]
- Search “tendinopathy” [MeSH] ” OR “tendinitis”[keyword] or “tendonitis” [keyword] or “paratendonitis” [keyword] OR “paratendinitis” [keyword] OR “paratendinopathy” [keyword] OR “tendinosis” [keyword] OR “paratendinosis” [keyword]

In addition, we searched The Cochrane Library for systematic reviews of agents used for treating Achilles tendinopathy. The abstracts of identified studies were screened for relevance (i.e., meeting the inclusion criteria). Relevant papers were retrieved and reviewed independently by A.S. and E.H., and their reference lists further hand-searched. In the case of discrepancies between reviewers, the inclusion and exclusion criteria were re-reviewed by both parties, and a consensus was reached.

The methodologic quality of included studies was assessed independently by two examiners (A.S. and E.H.) using the Oxford scale, also known as the Jadad scale.¹ This is the most widely used scale to assess the quality of clinical trials and assigns a score from 0 (poor quality) to 5 (robust). We extracted data from the studies, calculated the Cohen’s effect sizes (d) and tabulated the results.

Our search strategy identified 72 randomized controlled trials, of which 11 met the above inclusion criteria (Figure 1). We also identified one systematic review published in 2001 by the Cochrane collaboration; the Cochrane review focused on the less common condition of acute Achilles tendinitis and did not make recommendations regarding management of chronic Achilles tendinopathy.²

Figure 1 (as supplied by the authors): Selection of randomized controlled trials for the treatment of chronic Achilles tendinopathy



References

1. Jadad AR, Moore RA, Carroll D, et al. Assessing the quality of reports of randomized clinical trials: Is blinding necessary? *Control Clin Trials* 1996;17:1-12.
2. McLauchlan GJ, Handoll HH. Interventions for treating acute and chronic Achilles tendinitis. *Cochrane Database Syst Rev* 2001;(2):CD000232.