

LA TROBE UNIVERSITY

Heel Pain: Lecture 3 FOs for plantar fasciitis

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Introduction

Foot orthoses (FOs) are a common treatment for plantar fasciitis

Commonly thought that FOs (particularly customised/biomechanical) are highly effective

However, poor quality evidence (expert opinion, case series or cohort studies)

Landorf et al, JAPMA, 2004

Review of RCTs evaluating FOs for plantar fasciitis - 4 RCTs found

Concluded that there was not enough evidence to show that customised FOs were better than prefabricated FOs for plantar fasciitis

Landorf et al, Archives of Int. Med., 2006

Randomised controlled trial (RCT) - n=135

- Compared sham, prefabricated, customised FOs
- Prefabricated and customised were more effective than the sham at 3 months (the effect was clinically small)
- However, no differences at 12 months
- Most importantly, no differences detected between the prefabricated and customised FOs

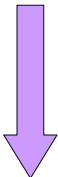
Research question

If we pool data from appropriate RCTs – thus increasing sample size – is there a difference between prefabricated and customised FOs in reducing pain associated with plantar fasciitis

Method

Levels of evidence

- Systematic review (meta-analysis)
- Randomised controlled trial
- Cohort study
- Case/control study
- Case series



Method cont.

4 available RCTs

- 1) Lynch et al, 1998
- 2) Pfeffer et al, 1999
- 3) Martin et al, 2001
- 4) Landorf et al, 2006

Trials homogenous (similar) enough to be able to pool data

3 further trials

- 1) Turlick et al, 1999
- 2) Rome et al, 2004
- 3) Roos et al, 2006

Not similar enough or insufficient results to pool data from these trials

Method cont.

4 available RCTs

- Lynch et al, 1998
- Pfeffer et al, 1999
- Martin et al, 2001
- Landorf et al, 2006

Trials homogenous (similar) enough to be able to pool data

Method cont.

All trials were clinically homogenous

- Similar patient characteristics
- Similar time frames (2-3 months)
- Similar comparisons of prefabricated and customised FOs
- Similar measurement of pain (either VAS, FFI or FHSQ)

Method cont.

Pooled standardised data to arrive at an estimate of the difference between the prefabricated and customised orthoses' effect on pain

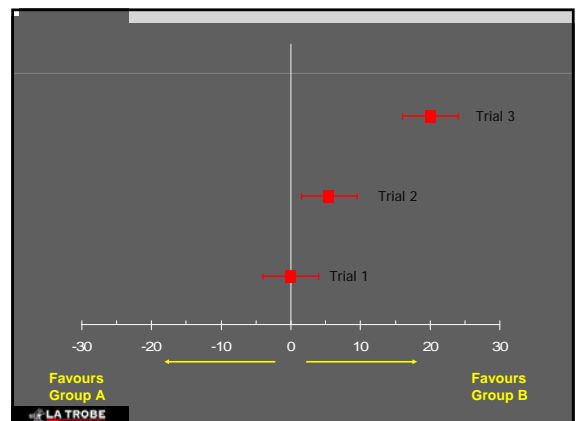
Results

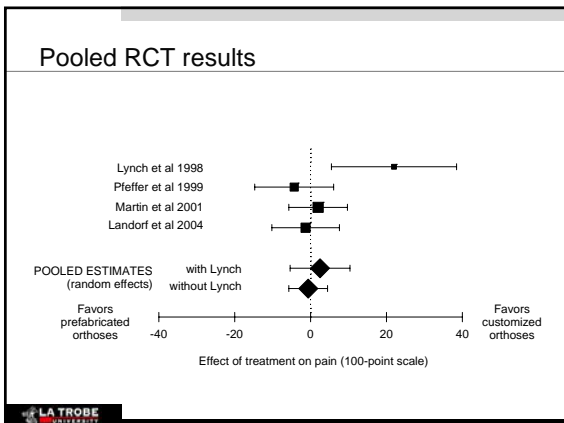
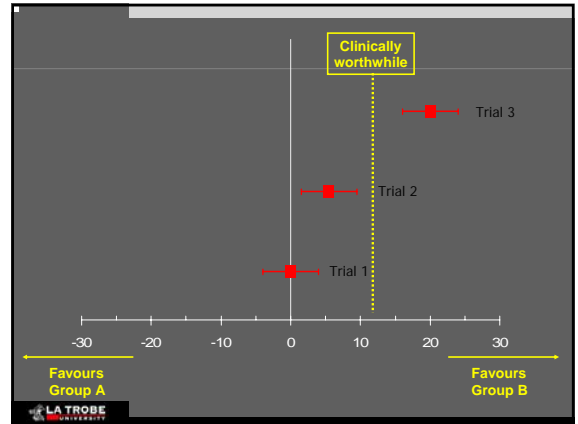
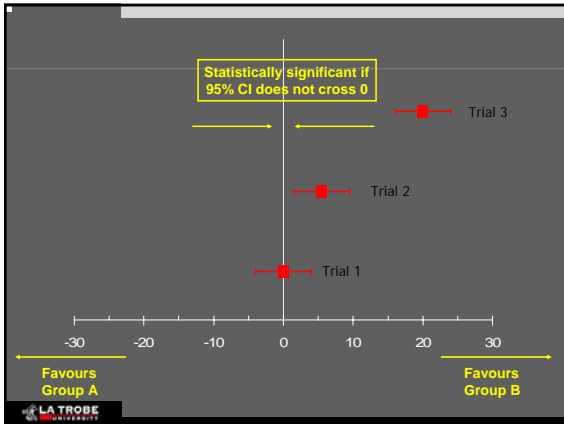
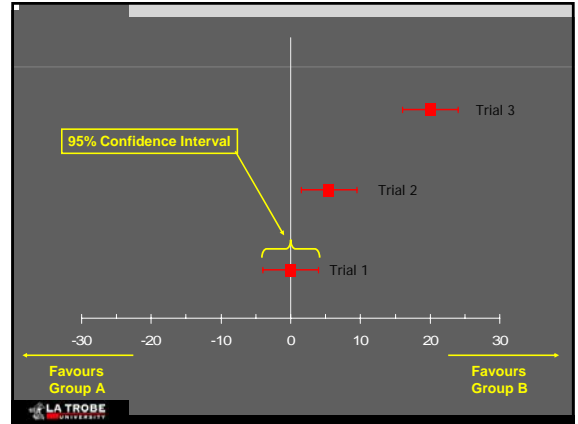
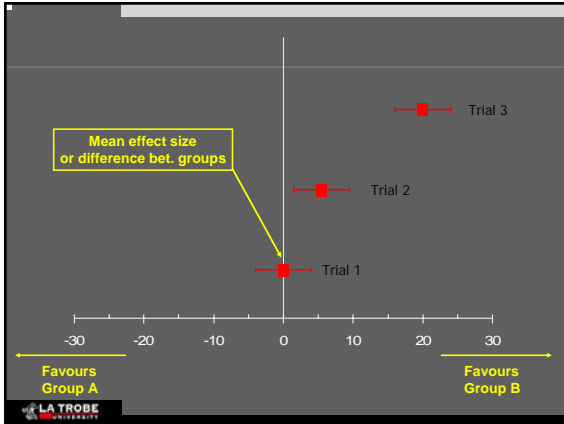
All groups improved greatly over time

But what about:

- Placebo effect
- Hawthorn effect
- Natural resolution

Need to compare groups



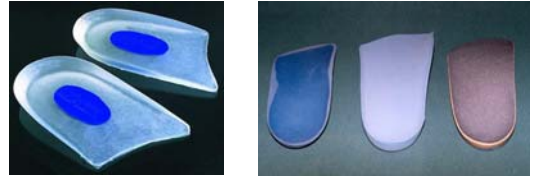


Discussion

From the RCTs pooled, our meta-analysis shows that there is no difference in the short-term effectiveness between **prefabricated** and **customised** FOs in their ability to reduce pain associated with plantar fasciitis

Summary

From the evidence supplied from this meta-analysis the initial orthotic treatment of plantar fasciitis should be with an appropriate **prefabricated** FO (*semi-rigid, contoured, with a heel cup*) not a **customised** FO



Main message

If you need to treat plantar fasciitis with a FO, then use an appropriate **prefabricated** one first and only move on to a **customised** FO if the **prefabricated** orthosis does not work and you have sound reasons why a **customised** device would work better

The end

Thankyou and good luck for
the rest of the year