Vivian E. Lee/Elsevier Global Medical News

Researchers found data supporting the benefit of custom foot orthotics for some.

Custom-Made Foot Orthotics Relieve Some Arthritis Pain

BY JONATHAN GARDNER
London Bureau

Custom-made foot orthotics can reduce foot pain caused by rheumatoid arthritis, pes cavus, and hallus vagus, according to a Cochrane Collaboration meta-analysis.

The authors stressed, however, that there are very few high-quality studies evaluating the use of orthotics to treat such conditions, weakening the clinical relevance of their conclusions.

The researchers evaluated a total of 11 randomized controlled trials and controlled clinical trials, which together had 1,332 subjects. The strongest evidence supporting the use of customized orthotics was in the treatment of painful pes cavus (high arch).

They also found evidence supporting orthotic use to treat foot pain associated with juvenile idiopathic arthritis, rheumatoid arthritis, plantar fasciitis, and hallux valgus.

"Custom foot orthoses can be an effective treatment for a variety of conditions, but there are still many causes of foot pain for which the benefit of this treatment is unclear," Fiona Hawke, the lead researcher, who works at the Central Coast campus of the University of Newcastle (Australia), said in a written statement.

"There is also a lack of data on the long-term effects of treating with orthoses."

► **Painful pes cavus.** The researchers found a single study that showed custom orthotics were superior to sham orthotics at 3 months in treating 154 patients with this disorder.

Those wearing custom orthoses showed a statistically significant weighted mean difference of 10.9 points on the pain domain of the foot health status questionnaire and 11 points in the function domain (Cochrane Database Syst. Rev. 2008 July 15 [Epub doi: 10.1002/14651858.CD006801.pub2.]).

► **Juvenile idiopathic arthritis.** A single study of 33 children showed that custom foot orthotics were linked to significant improvements at 3 months in pain, function, and disability, compared with a standardized intervention (supportive shoes).

Weighted mean improvements of 19.2 on the pain scale of the foot function index, 19.4 on the index's activity limitation scale, and 18.6 on the disability scale were reported.

► **Rheumatoid arthritis.** A single study with 101 subjects found foot orthotics were more effective than no intervention in reducing rear foot pain after 30 months.

► **Plantar fasciitis.** A study of 92 subjects assessed at 3 and 12 months demonstrated a statistically significant improvement in foot pain–related function for those who used custom orthotics to treat plantar fasciitis, compared with those using sham orthoses.

Treated subjects reported a weighted mean improvement of 10.4 at both time points on the foot health status questionnaire.

The investigators did not measure a statistically significant improvement over standard interventions, however, and found that customized orthotics were less effective than stretching and mobilization over 2 weeks.

► **Painful bunions with hallux valgus.** Foot orthotics were shown to be more effective than no intervention over 6 months in a study of 138 subjects, with a weighted mean improvement of 9 on the 100-mm visual analog scale.

That study did not find a statistically significant improvement over 12 months, however. ■

Pages 26a—26d