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## ☆ Commentary: An orthopedist responds

There is no best treatment modality for osteoarthritis of the knee.<sup>1</sup> The article by Hinman et al is an attempt to take a complex medical problem and provide a treatment option that is simple, affordable, and available to all. The authors should be commended on their approach to this task and on their study design.

Hinman et al are correct in stating that there has been no previous scientific evidence supporting therapeutic taping for knee osteoarthritis. Their trial found a significant reduction in pain and disability in patients with knees taped by physical therapists compared with both no-tape controls and patients receiving sham taping.

The knee joint moves in 6 different planes, each affected differently by osteoarthritis. It is hard to imagine that tape, even rigid strapping tape, applied to the soft tissues of the knee would generate enough force to overcome the shock of repetitive weight bearing on a diseased joint. The use of braces—with greater strength than taping—has been shown not to be effective as a treatment modality for patients with generalized osteoarthritis.<sup>2,3</sup> As an experienced orthopedic surgeon, I'm skeptical that taping alone works. What, then, could explain these findings?

First, the study's sample size was small (29 patients in each group). Despite statistical significance, chance could have played a role. Second, the study was single-blinded. The physical therapists may have unintentionally given higher expectations (and thus greater placebo response) to patients receiving therapeutic taping, or lower expectations to those receiving sham taping. Third, the use of multiple physical therapists as tapers raises questions. Did some therapists' taping techniques produce different outcomes? Fourth, as volunteers, study pa-

tients may have been more likely to show results from the intervention.

The short duration of the study raises concern about the long-term efficacy of this modality. Over time, is there diminution in the effectiveness of taping? Is there adaptation of the proprioceptor fibers, leading to a loss of efficacy?

Even if therapeutic taping works, one has to wonder how likely patients will be to comply with the weekly taping regimen employed in the study. Is the clinical improvement enough to warrant the daily or weekly taping sessions that patients would have to undergo? Bracing therapy, which is admittedly more cumbersome than taping, has always been associated with reduced patient compliance.

This study does as good a job as any in correlating the intervention with pain and disability scale results, but the spectrum of osteoarthritis and the individuality of pain make this a very difficult task. The authors' findings are provocative. But before recommending that readers refer all patients with knee osteoarthritis to their local physical therapist for taping, I would like to see a larger, longer study and more details of the taping intervention. ♦

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