Commentary to "Conservative Treatment of Thumb Base Osteoarthritis: A Systematic Review"

Spaans et al,[1] the authors of "Conservative Treatment of Thumb Base Osteoarthritis: A Systematic Review," have tried to answer a question that has plagued the profession of hand surgery and hand therapy for quite some time: Which, if any, of our conservative treatment methods are effective for patients with osteoarthritis (OA) of the thumb trapeziometacarpal (TMC) joint. They draw conclusions based on the 23 articles they culled through a literature search. Their suggestions on further research studies needed in this arena are admirable. Their conclusions drawn from the existing literature they reviewed are questionable because they were unable to complete any statistical pooling. The most important conclusion from this paper may be just how poor the literature is that would guide our nonoperative care of OA at the TMC joint.

The authors list in Table 1 their included search terms. Whereas a long list of useful terms was included, other terms were missing. Additional searches with terms such as joint protection, orthotic (the authors use only orthosis and splint), and self-management may have added to their inclusion of articles.

Although we would like to have a quick and easy guide to conservative treatment, it is difficult to abide by the authors' conclusions from these selected studies. The lack of homogeneity of these articles makes drawing any conclusion more opinion than science. In addition, the majority of the studies have very small sample sizes and extremely short follow-up periods. No study had more than 60 patients, and most included fewer than 30 participants. The authors conclude that transdermal steroid delivery via iontophoresis is not effective based on one study with a small sample size (34 patients) (their reference 35). Although the authors conclude this constitutes a definitive finding, we would argue that more research may be warranted in this arena.

Because OA of the TMC joint is a degenerative condition that may affect a patient for years or decades, follow-up periods that are less than a year may be influenced by brief remediations. Only one of their included studies had a follow-up of greater than a year, most had follow-ups of only weeks or months. As the authors mention, OA can flare and return to baseline through many cycles in a person's lifetime. Many of the results seen may have been related to the natural fluctuation of symptoms versus actual success of a conservative treatment method. With such short follow-up periods in these studies, it is impossible to know.

This great benefit of this article is a "call to arms" for high-quality and immediate research in this area. Because TMC joint OA is one of the most common conditions that presents in hand surgeons' and hand therapists' offices, finding a sizable population to study should not be a barrier. In addition, because many patients prefer to refrain from surgery for as long as possible, extending follow-up periods should also be easily attainable. Larger and more thorough randomized controlled trials on the conservative treatment methods outlined by the authors would benefit the entire profession and our patients.

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REFERENCE

1. Spaans AJ, van Minnen LP, Kon M, Schuurman AH, Schreuders AR, Vermeulen GM. Conservative treatment of thumb base osteoarthritis: a systematic review. *J Hand Surg Am.* 2015;40(1):16–21.

