Dear Editor,

We appreciate the interest in our work. Concern is expressed about the high drop out rate, lack of radiological diagnosis, short-term evaluation time, handling of missing data, and imprecise splint wear instructions. We agree that our data should be interpreted in light of these aspects of the study design and execution.

This was a pragmatic clinical trial. We compared the effectiveness of prescribing one of two treatments to the typical patient who would receive that treatment in practice. Pragmatic trials don’t measure the efficacy of a treatment under ideal conditions (e.g., all patients wore the splint exactly as prescribed and had no other conditions or treatments). Pragmatic trials test the effectiveness of treatments as actually used in clinical practice in the average patient, many of whom have other conditions and receive other treatments. It is our routine practice to assess our estimates of attrition at the halfway point of our prospective protocols and recalculate power according to the true attrition rates. In practice we diagnose trapeziometacarpal (TMC) arthrosis based on symptoms and physical examination, therefore we did not require radiographs to confirm the diagnosis. In our opinion, patients can tell whether a splint helps relieve their symptoms within 4–6 weeks of starting to use it. Also, given that there are no known disease-modifying treatments for osteoarthritis, we consider the splints palliative at best (for instance, we are not concerned about whether a splint can affect joint alignment) and we advise patients to use the splint for comfort at their discretion and do not give them specific instructions for wear of the splint. The randomization should create comparable cohorts with no need to cross over and give each patient a chance with each splint. Caregivers that believe it’s important to prescribe a more detailed and specific set of instructions for splint wear, or that a specific subset of patients with TMC arthrosis benefit from splint wear, can readily repeat our study with slight modification.

Fifteen patients (24%) had an average improvement of 23 ± 13 points (range, 10–57) with the use of a splint. There were six DASH questionnaires (five at enrollment [8.1%] and one at follow-up [1.6%]) with four or five missing items that were analyzed. We used these DASH questionnaires with up to five missing items to minimize selection bias and because the missing items did not represent more than 17% of the total 30 items of the questionnaire.

We welcome additional investigation on splint treatment of TMC arthrosis. In our opinion, additional pragmatic trials are likely to confirm the findings of our study that: (1) a large percentage of patients with a new diagnosis of TMC arthrosis never return to the office after prescription of a splint even if they are enrolled in a clinical trial; (2) splints (no matter the design or wear schedule) don’t provide much pain relief or decrease in disability on average; and (3) a relatively flexible prefabricated splint is as good as a custom rigid splint and slightly preferred.

A prefabricated splint for TMC arthrosis can be purchased at the local pharmacy for roughly the cost of a single insurance co-payment for visiting an occupational, physical, or certified hand therapist’s office. If we put ourselves in the patient’s shoes, that seems like a reasonable option. An option worth studying.

Sincerely,
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Author contributions
All authors contributed equally to this submission.

Conflict of interest
Nothing to disclose.

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None.

References