Letter to the Editor

External Rotation Immobilization for Primary Shoulder Dislocation: A Randomized Controlled Trial

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To the editor,

We read with great interest the article by Whelan and colleagues [13] comparing two different immobilization methods for first time shoulder dislocations. We applaud the efforts of this research team, as well as others [3, 9] who have attempted to reproduce the results found by

Itoi et al. [8, 10] with randomized clinical trials. However, the results of these three studies still leave questions regarding the ideal method for shoulder immobilization in this population.

While several factors (smoking, sex hormones) [6] can affect soft tissue healing and should be evaluated as potential covariates in future studies, we believe that the length of immobilization may be one of the more important factors. The length of immobilization (3 to 4 weeks) were inadequate in these studies. Although considered a standard timeframe, studies suggest 3 to 4 weeks is too short of a time to allow for proper healing [7, 12]. The remodeling phase for soft tissue in the shoulder may not begin until 3 to 4 weeks after the proliferation phase peaks, which typically occurs within 1 to 3 weeks [1, 4]. The damaged tissue will likely not reach maximum tensile strength until a minimum of 12 weeks [11].

Is it possible that recurrence rates in younger patients would decrease with slightly longer immobilization timeframes due to increased stability of the soft tissue repair [2]? The answer may influence interpretation of other studies such as noninferiority trials comparing surgical to conservative management [5]. The risk of prolonged immobilization may be worth taking, especially in the younger patient [2], where reports of adhesive capsulitis younger than the age of 35 are practically nonexistent in the literature. In our experience, from a rehabilitation perspective, it has proven much easier to address stiffness in a young, active patient, after a longer period (6 weeks minimum) of immobilization than to address instability in a patient with normal ROM. If length of immobilization proves to be a significant factor associated with recurrence, then the secondary question related to proper position may have more relevance.

(RE: Whelan DB, Litchfield R, Wambolt E, Dainty KN; in conjunction with the Joint Orthopaedic Initiative for National Trials of the Shoulder (JOINTS). External Rotation Immobilization for Primary Shoulder Dislocation: A Randomized Controlled Trial. [Published online ahead of print January 3, 2014]. *Clin Orthop Relat Res*. DOI: 10.1007/s11999-013-3432-6.)

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