

Letters to the Editor

 **Comments on “Ultrasound-guided Shoulder Intraarticular Ozone Injection Versus Pulsed Radiofrequency Application for Shoulder Adhesive Capsulitis: A Randomized Controlled Trial”**

To THE EDITOR:

With great interest, we have read the article by Foula et al (1) published in the *Pain Physician Journal*. We appreciate the authors' successful completion of this significant work while also raising some concerns and questions.

The investigators have stated that range of motion (ROM) differences were significant in all treatment groups according to the baseline. Active and passive ROM limitation, especially in external rotation and elevation, is observed in patients with adhesive capsulitis (2,3). However, the measurements of ROM were not detailed in the article; were the measurements active or passive?

Therapeutic exercises play a great role in the treatment of adhesive capsulitis. Ginn et al (4) reported that exercise was as effective as intra-articular corticosteroid injection in reducing pain in the short term. Similarly, significant improvement in shoulder ROM is achieved in patients receiving regular physical therapy and performing neuromuscular exercises (4,5). To what degree may the notable changes in scores be solely attributed to the impact of the exercise? Is this factor a potential confounding variable?

It is well established that patients obtain more benefits from conservative or injectable treatments during the early phase of the disease, leading to a shorter duration of symptoms (3). Yet, the exact stage of adhesive capsulitis was not indicated in the article.

In terms of the improvement in visual analog scale (VAS) scores, variables like medication can have an impact (3,6). Patients who did not respond to conservative

treatment were included in the study, but no information was given about which medicines these patients were taking or whether they continued medication throughout the study.

As reported by Le et al (7), the response to treatment and functional status of diabetic patients are worse than those of nondiabetics. The comorbid conditions of the patients were ambiguous as well as it remains unclear whether it has an impact on treatment outcomes.

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