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Accuracy of Acromioclavicular Joint Injections: Letter to the Editor

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Accuracy of Acromioclavicular Joint Injections

Letter to the Editor / Response

Dear Editor:

With interest I read the article "Accuracy of Acromioclavicular Joint Injections,"⁶ published on November 27, 2012 in your highly esteemed journal. First of all I congratulate Bradley R. Wasserman and his coworkers for their clinically relevant and innovative work. Accuracy in the field of orthopaedic surgery, especially at the shoulder joint, is among the most relevant topics to date.

However there are some issues about statements in the manuscript, which I will note step by step.

At the end of the introduction and at the begin of the discussion it is stated that "to the knowledge of the authors," the Bisbinas et al¹ study is the only one dealing with accurate AC joint injection in a clinical setting. In 2010, Sabeti-Aschraf et al⁴ published in the *European Journal of Radiology* a randomized controlled trial where 20 patients received injections to the AC joint. It was stated that ultrasound guidance showed accurate intra-articular needle placement.

In the Materials and Methods section the authors explain the injection procedure. It is reported that the acromioclavicular (AC) joint was injected via a superior approach. As accuracy is the major topic of this analysis I miss explicit information if the physicians tried on purpose to perform intra-articular joint injection or an injection to/adjacent to the joint was desired.

In the discussion it is "believed" that ultrasound guidance might improve accurate intra-articular injection. Sabeti-Aschraf et al,^{4,5} Peck et al (2010),³ and Borbas et al (2012)² have highlighted in prospective trials the significantly more accurate AC joint injections by ultrasound guidance compared with by conventional palpation technique.

Once more I congratulate the authors on the publication of this important manuscript. It is unclear when it was originally written, however recent citations on this very topic are missing.

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The author declared that he has no conflicts of interest in the authorship and publication of this contribution.

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Authors' Response:

We appreciate the letter to the editor and its comments.

The purpose of our study was to report on the accuracy of AC joint injections. The manuscript was written in 2011. Of the studies cited to the letter to the editor, the 2 studies that were published prior to our paper include the article by Sabeti-Aschraf et al² and Peck et al.¹

The authors read the article by Sabeti-Aschraf et al, "The Infiltration of the AC Joint Performed by One Specialist: Ultrasound Versus Palpation a Prospective Randomized Pilot Study."² It was a well-done study with 20 patients, documenting significant temporary improvement in pain, with no significant differences between those who received an ultrasound-guided injection versus the conventional palpation technique. The authors did not comment on the accuracy and therefore we did not include it in our discussion.

The study by Peck et al¹ is a valuable contribution comparing the accuracy of AC joint injections by ultrasound guidance or by palpation-guided injections in 20 cadavers. There were 10 cadavers in each group. All injections were performed by 1 single experienced operator. The authors reported a 100% accuracy rate with ultrasound-guidance compared with 40% accuracy via palpation guidance and concluded that clinicians

should consider sonographic guidance to inject the AC joint.

The authors read the remainder of the referenced citations. The studies are in agreement with our conclusions, either citing the relatively low accuracy rate using direct palpation and/or that ultrasound guided injections will likely increase the targeting accuracy. We again appreciate the comments and believe these studies are relevant to this important topic and hope that other readers will consider this information when counseling patients regarding AC joint injections.

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