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LETTER TO THE EDITOR

Does the dosage matter in sclerosing polidocanol injections in Achilles tendinopathy?

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Dear Editor,

I read with great interest the recent report by Dr. Willberg and co-workers [1] studying the effects of either 5 or 10 mg/ml polidocanol injections in mid-portion Achilles tendinopathy. From an evidence-based medicine point of view, I would like to congratulate the authors for their excellent work in performing and reporting the results of their randomized trial.

As stated by Bertrand Russel (1872–1970): "The most savage controversies are those about matters as to which there is no good evidence either way" [2]. And this holds true for the clinical decision making regarding the concentration of polidocanol sclerosing injection in tendon therapy. Although there is general agreement that randomized-controlled trials provide the best evidence surgical trials are often expensive, time consuming or difficult to perform. In addition, industry sponsorship may lead to biased results [3]. Thus, the efforts of the authors are remarkable with no evident industrial conflict of interest involved in any of the authors in a orthopaedic randomized trial.

However, as far as reporting quality of the randomized trial is concerned there is still room for improvement. The Consolidated Standards of Reporting Trials (CONSORT) statement published in 2001 [4] comprises a 22-item checklist and a flow diagram along with some brief descriptive text. The checklist items focus on reporting how the trial was designed, analyzed, and interpreted; the flow diagram displays the progress of all participants through the trial. The diagram explicitly shows the number of participants, for each intervention group, included in the primary data analysis. Inclusion of these numbers allows the reader to judge whether the authors have done an intention-to-treat analysis. In sum, the CONSORT statement is intended to improve the reporting of an RCT, enabling readers to understand a trial's conduct and to assess the validity of its results. Given the authors expertise in performing a randomized trial I think it is appropriate to endorse the CONSORT criteria in this very situation.

The authors performed either three injections with 5 or 10 mg/ml polidocanol from the medial site with a mean 3.2 ± 1.6 or 3.1 ± 1.3 ml in three injections. However, the authors chose to perform the fourth and fifth injection with 10 mg/ml polidocanol only to re-assess the outcome after five sclerosing injections. I am curious to know whether this was guided by the hypothesis that the higher polidocanol concentration would be more likely to achieve a good clinical result among those patients failing to achieve satisfaction after three injections either with 5 or 10 mg/ml. Do the authors recommend using this higher dosage in patients failing to improve clinically after three injections?

At least to me there is a discrepancy between the reported superior results of polidocanol injections in Achilles tendinopathy [5] and patellar tendinopathy [6] compared with lidocaine + adrenaline and the results in tennis elbow tendinopathy. Following the question of the former editor-in-chief Ejnar Eriksson: *Is tennis elbow the same type of tendinosis as Achilles and patellar tendinosis?* [7], one is tempted to speculate that Achilles, patellar and tennis as well as golfers' elbow have several features in common. As such neovascularisation is appreciated in each state using either colour or power Doppler sonography. Furthermore, nerve fibres conducting pain sensations are detected at the site of neovascularisation. In tennis elbow,

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intra-tendinous injections of either polidocanol 10 mg/ml or lidocaine + adrenaline injections were performed using colour Doppler guidance in a randomised trial [8]. The authors could not detect a significant clinical difference between both regimens: in both groups the pain level were significantly reduced at 3- and 12-months-follow-up. One explanation might be that the intra-tendinous injection in tennis elbow is somewhat different to the strict extra-tendinous ventral injection in Achilles tendinopathy from a point of view. However, I would appreciate if the authors could comment on this issue in much more detail. In other words: does the injected agent matter if a colour or power Doppler ultrasound guidance is used in tendinopathy?

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