

Reply to comment on Schepers: acute distal tibiofibular syndesmosis injury: a systematic review of suture-button versus syndesmotic screw repair

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Received: 6 November 2012 / Accepted: 7 November 2012 / Published online: 21 November 2012
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Dear Editor,

Van Heest correctly points out that the study by Wikerøy et al. (2010) included in the systematic review on syndesmotic screws versus the repair with a suture-button device is in fact a continuation of an earlier study by Høiness et al. (2004) [1, 2]. In the extended follow-up study, 75 % of the initial patients were included.

The 2010 study was included in the review because, in comparison to the earlier study, it included the American Orthopaedic Foot and Ankle Society (AOFAS) score, which was used to compare the two treatment strategies [3]. So, for the outcome comparison, the patient pool was used only once. Erroneously, both studies were included in the calculation of the syndesmotic screw removal rate.

However, the warning for gross overestimation of treatment effect by colleague Van Heest apparently does not apply to the current study. A syndesmotic screw removal rate of 51.87 % (449/866) was reported in the review, which after removing the 2004 study changed to 51.85 % (417/804). Indicating an absolute overestimation of 0.02 %, this is most likely not a statistically significant difference, or at least not a clinically significant difference. Secondly, the studies that Van Heest refers to concern formal meta-analyses, compared to my 'less formal' systematic review. Apart from the above data, I do agree with Van Heest that more vigilance is warranted in any review for covert duplicate publication and subsequent double counting.

Since the appearance of this systematic review, one additional, substantially sized study on suture-button treatment for acute syndesmotic instability was published on Pubmed Medline [3, 4]. In this study, there were 102 patients with a median follow-up of 85 (17 to 1,292) days, during which

eight patients had implant removal [4]. Upon including this data in the systematic review, a total of 30 patients out of 322 needed implant removal, resulting in a removal rate of 9.32 % for the suture-button device. However, about half of the included studies report on patients with a follow-up of less than 12 months. Of more interest is the finding that the use of a suture-button device, compared to the use of a syndesmotic screw, appears to lead to less fibula malreduction, which is a known predictor of worse functional outcome [5–7]. However, long-term outcome data and cost-effectiveness remain underexposed to date.

The author certifies that there is no financial conflict of interest with any organisation regarding the material discussed in the manuscript.

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