

Tibiofibular syndesmosis injury – comparative analysis between suture button and transyndesmal screw fixation: A systematic review with meta-analysis

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Introduction: The aim of this study was to compare the functional results obtained by the suture button and transyndesmal screw fixation techniques in the treatment of tibiofibular syndesmosis lesions.

Methods: This is a systematic review with meta-analysis registered with the International Prospective Register of Systematic Reviews (PROSPERO) under ID CRD42024512033 to improve the quality and suitability of the results for the proposed objectives.

Results: A total of 185 articles were selected during the search process; after excluding those published more than 15 years ago, 54 remained. Analysis of the titles and abstracts allowed 35 articles that did not align with the objective of this study to be excluded. A comprehensive review of 19 articles was conducted; 13 were excluded for not meeting the inclusion criteria, and six were selected for analysis.

Conclusion: Suture button therapy is as reliable and reproducible as the screw method and can be used as an alternative with similar clinical results. It remains controversial which is the best option, but suture-button therapy was associated with lower rates of second procedures, lower patient and clinical costs, and faster loading times. It may be more beneficial for patients, and consequently for orthopedic surgeons, to opt for dynamic fixation rather than the usual and traditional static fixation.

Keywords: Tibiofibular Syndesmosis of the Ankle; Ankle injuries; Suture techniques.

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