KEY PROCEDURES

USE OF SUTURE BUTTON IN THE TREATMENT OF SYNDESMOSIS INJURIES

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Published outcomes of this procedure can be found at: *J Bone Joint Surg Am.* 2018 Jan 3;100(1):2-12.

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Abstract

A suture button device provides fixation of syndesmosis injuries of the ankle with or without concomitant malleolar fracture. The suture button device consists of a fiber thread attached between 2 small metal buttons. The buttons are placed on the cortical bone on the medial and lateral sides of the ankle, and the fiber thread is tightened to stabilize the syndesmosis. The suture button device offers stable yet dynamic fixation of the injured syndesmosis. The major steps of the procedure are (1) lateral skin incision straight to the bone; (2) open reduction and plate fixation of the fibular fracture if one is present; (3) reduction of the syndesmosis and temporary stabilization with a pin or clamp; (4) use of an appropriate burr to make a hole through 4 cortices at the level of the inferior tibiofibular joint, approximately 1.5 cm proximal to the ankle joint line and at a 20° to 30° lateral-to-anteromedial angle; (5) pulling the needle attached to the suture button device through the drill-hole from lateral to medial and flipping the small plate on the cortical bone of the medial cortex of the medial malleolus; (6) tightening the device by pulling the 2 threads on the lateral side with care taken to remove all of the slack from the system; and (7) checking placement and fixation with fluoroscopy, cutting the threads, and skin closure. Use of a walker boot or cast is decided on the basis of the fracture fixation. Partial weight-bearing is allowed for the first 6 weeks, after which full weight-bearing is permitted as pain allows. Routine removal of the suture button device is not required.

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Disclosure: The authors indicated that no external funding was received for any aspect of this work. On the **Disclosure of Potential Conflicts of Interest** forms, which are provided with the online version of the article, one or more of the authors checked "yes" to indicate that the author had a relevant financial relationship in the biomedical arena outside the submitted work (<http://links.lww.com/JBJSST/A213>).

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