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Short-term results for acute instability of the syndesmosis treated with arthroscopic reduction and percutaneous fixation

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ABSTRACT

Introduction: Acute syndesmotic sprain is rarely associated with instability in the absence of fracture. The surgical treatment of these injuries is usually performed as an open procedure with direct visualization of the anatomical reduction of the joint. However, direct visualization of the reduction can be achieved by arthroscopy with minor incisions avoiding damage to the soft tissues. The aim of this study is to present the short-term outcomes of a series of patients with acute unstable syndesmotic injuries who were surgically treated through an arthroscopic reduction and percutaneous fixation with a suture button.

Methods: We report a series of 8 patients with a mean age of 25,62 years with acute instability of the syndesmosis without fracture who were treated through arthroscopic reduction of the syndesmosis followed by percutaneous fixation using a suture button, between October 2014 and May 2018. Medical records, the visual analogue scale (VAS) for pain, the American Orthopaedic Foot and Ankle Society (AOFAS) ankle-hindfoot score, pre and postoperative radiological results (stress radiographs, computed tomography and magnetic resonance imaging) and complications were retrospectively reviewed.

Results: After a mean follow-up of 13,4 months, the mean VAS was 0 and the mean AOFAS was 100. All patients were able to return to their preinjury activities and were completely satisfied with the treatment outcomes. Two patients had an associated deltoid ligament rupture and were treated by open repair at the same time. Two complications were observed. One patient developed an aseptic cyst over the distal knot, and one evolved with complex regional pain syndrome. The last one required a reoperation to remove the anterior button.

Conclusion: Arthroscopic treatment represents an effective approach for acute syndesmotic instability. In the short-term, it provides satisfactory clinical and functional results, allowing patients to return to their previous activities. It is reliable regarding anatomic reduction of the syndesmotic joint and percutaneous fixation with a suture button without aggression toward the soft tissue of the ankle.

Keywords: Arthroscopy; Syndesmosis; Joint instability.

