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## **Evaluation of surgical outcomes of arthroscopic subtalar arthrodesis performed through two lateral portals**

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### **ABSTRACT**

**Objective:** The purpose of this study is to present the surgical outcomes of 12 patients who underwent arthroscopic subtalar arthrodesis using 2 lateral portals (anterior and medial) in the sinus tarsi.

**Methods:** A retrospective study was conducted with 12 patients (7 men and 5 women) with a mean age of 55.1(36-74) years who underwent arthroscopic subtalar arthrodesis through the sinus tarsi from May 2015 to December 2016. The postsurgical follow-up period was 12 months. Union time and postoperative complications were evaluated, and a validated functional questionnaire from the American Orthopedic Foot and Ankle Society (AOFAS) and the pain visual analog scale (VAS) were applied before and after surgery.

**Results:** The mean time to bone fusion was 11.5 weeks. Bone union occurred in all subjects. Four patients developed late complications, 3 of which were related to screw positioning in the calcaneus and one of which was related to residual hindfoot varus deformity. Screw-related complications are common among subtalar arthrodesis techniques, and such complications are considered minor when the effectiveness of the technique is considered. The mean preoperative AOFAS score was 42.3 (27-66) points, whereas the mean postoperative score was 83 (73-94) points. The mean preoperative pain VAS score was 8.1 (5-10) points, and the mean postoperative pain VAS score was 2.1 (0-5) points. The above data are similar to those reported in the main published studies and reflect high bone union rates.

**Conclusion:** Arthroscopic subtalar arthrodesis through 2 lateral portals in the sinus tarsi is a safe and effective technique for the treatment of primary and secondary disorders of the subtalar joint. Surgeons must carefully position the screws and align the hindfoot to avoid complications related to orthopedic hardware and hindfoot varus deformity.

**Keywords:** Subtalar joint; Arthrodesis; Arthroscopy; Heel.

