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## **Arthroscopic subtalar arthrodesis in tarsal coalition**

Wagner Vieira da Fonseca<sup>1</sup>, Rogério de Andrade Gomes<sup>1</sup>, Gilberto Coelho Byrro Oliveira<sup>1</sup>, Sidney Max e Silva<sup>1</sup>,  
Matheus Maciel Vilela<sup>1</sup>, Bruno Janotti Pádua<sup>1</sup>

1. Hospital da Unimed, Belo Horizonte, MG, Brazil.

### **ABSTRACT**

**Objective:** To describe the technique and results of arthroscopic arthrodesis through lateral portals in clinical cases of medial subtalar coalition. The posterior arthroscopic technique is considered the most difficult method for coalition resection.

**Methods:** Five patients were operated on from April 2015 to July 2018, a study period of approximately 2 years and 3 months. The patients' age ranged from 37 years and 6 months to 58 years and 1 month, with a mean age of 44 years and 5 months. All patients were operated on through 2 lateral portals using an eyepiece and knee and shoulder arthroscopic surgery instruments, and fixation was performed using 6.5- and 7.0-mm screws. The use of osteotomes was combined with curettes for coalition osteotomy and fusion release. An accessory lateral posterior portal was also used in one patient.

**Results:** The patients were evaluated at 1, 2, 4 and 6 weeks and subsequently at 3 months, when computed tomography was performed to confirm the fusion. The final evaluations were performed at 6 months and 1 year. At the initial evaluation, the mean American Orthopedic Foot and Ankle Society Score (AOFAS) score was 56.7 points preoperatively; it increased to 87.4 after the blocked inversion/eversion was addressed through arthrodesis.

**Conclusion:** This coalition osteotomy and curettage technique involving the release of the blocked subtalar motion to achieve fusion of the posterior, anterior and medial portions of the subtalar joint was found to be feasible through arthroscopic lateral portals. We recommend this procedure as long as no valgus deformity or significant abduction is present.

**Keywords:** Arthrodesis; Subtalar joint; Tarsal coalition; Arthroscopy.

