

**Abstract Number: 18101**

## **Talar body reconstruction for nonunions and malunions**

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### **ABSTRACT**

**Introduction:** Talar body and neck nonunions and malunions may undergo reconstructive surgery when joint cartilage is still viable and no talar collapse or infection has occurred. This is a rare condition, and studies supporting the procedure have a small number of cases.

**Objective:** To report a case series of six patients who underwent talar reconstructions.

**Methods:** Six patients with talar malunions or nonunions who underwent surgical treatment were reviewed in this retrospective study. There were three nonunions and two malunions of the talar body and one malunion of the talar neck. Clinical evaluation included all the parameters used in the American Orthopaedic Foot and Ankle Society (AOFAS) hindfoot scale. Arthritic degeneration of the ankle joint was assessed according to a modified Bargon scale.

**Results:** The mean follow-up was 86 months (range 24-282 months). There were no cases of postoperative avascular necrosis of the talus. Four of the six patients in our series required a subtalar fusion as part of the reconstructive procedure. The average preoperative AOFAS hindfoot score was 34; at the time of the last evaluation, it was 74. The mean preoperative score on the modified Bargon scale for the tibiotalar joint was 1.17. At the last follow-up, it rose to 1.33. Three different deformities of the talus were identified: (a) flattening of the talus; (b) extra-articular step; (c) intraarticular step.

**Conclusion:** Reconstruction of talar nonunions and malunions improved function in selected patients with a low risk of complications. Three different anatomical patterns of talar nonunions and malunions were identified.

**Keywords:** Nonunion; Pseudoarthrosis; Talar fracture.

