

**Abstract Number: 18204**

## **Posterior ankle arthroscopy for percutaneous fixation of a posterior malleolar fracture**

Guilherme de Souza Fernandes<sup>1</sup>, Claudio Velleca e Silva<sup>1</sup>

1. Instituto Velleca de artroscopia, Porto Alegre, RS, Brazil.

### **ABSTRACT**

**Introduction:** The authors report the case of a 47-year-old patient who fell and experienced a sprained ankle that progressed to posterolateral fracture-dislocation of the ankle and Lauge-Hansen stage 4 supination-external rotation.

**Objective:** To evaluate the use of posterior ankle endoscopy to facilitate the internal fixation of a posterior malleolar fracture.

**Methods:** Case report of a patient with posterolateral fracture-dislocation of the ankle and description of the use of endoscopy for treatment. Examinations performed in the emergency room showed evidence of posterior malleolar fracture with a typical Volkmann fragment and a Danis-Weber type-B lateral malleolar fracture with posterolateral dislocation of the ankle joint. After fracture immobilization, the patient underwent surgical treatment with posterior endoscopy of the ankle for visualization and for percutaneous fixation of the posterior malleolar fracture and open reduction, with internal fixation with a direct incision of the fibula (lateral malleolus).

**Results:** The use of endoscopic and arthroscopic methods for the ankle has gained popularity, although there is still apprehension in using posterior endoscopy due to its limited visualization and less-comprehensive indication compared with anterior methods. Currently, posterior methods are indicated for osteochondral lesions of the subtalar joint, posterior malleolar and calcaneal fractures, tenosynovitis of the flexor hallucis longus and posterior synovitis. Despite the limited visualization, the use of endoscopy in this case enabled the percutaneous reduction and fixation of the posterior malleolus without requiring a classic posterior approach; consequently, the patient experienced less pain during the postoperative period and faster recovery than occurs with the classic incision.

**Conclusion:** We expect that over time posterior endoscopy will be increasingly used among surgeons in cases of posterior malleolar fracture because it offers a shorter hospital stay and allows patients to resume their activities of daily living earlier. However, posterior endoscopy of the ankle is not without complications and has a steeper learning curve than anterior endoscopy. Therefore, knowledge of the anatomy, indications and technique is fundamental.

**Keywords:** Ankle; Endoscopy; Posterior approach.

