

**Abstract Number: 18073**

## **Medium-term follow-up after surgically treated fifth metatarsal fractures in professional soccer players**

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### **ABSTRACT**

**Introduction:** Fifth metatarsal fractures are among the most common forefoot injuries, especially in young athletes. The purpose of this paper is to evaluate the functional outcome of professional soccer players undergoing surgical treatment of Dameron's zones II and III fifth metatarsal fractures with an intramedullary screw with or without bone graft.

**Methods:** Thirty-four professional soccer players underwent operations from July 2001 to June 2016. All of them underwent an evaluation based on AOFAS and VAS scores before and after surgery, with a mean follow-up of 24 months. The need for grafting was evaluated in relation to the time for surgery. Additionally, the influence of time to surgery, fracture union, Torg's classification and grafting were related to the time to return to sports. In addition, the player's position, age, complications and side of the lesion were also described.

**Results:** There were 10 forwards, 07 center forwards, 06 full-backs, 05 midfielders, 03 defenders, 02 goalkeepers and 01 central defender, with an average of 19 years; the right side was affected in 44% of cases. The AOFAS average pre and postoperatively was 42 and 99, respectively, while the EVA was 6 and 0. The longer delay to operate, the greater was the need for grafting ( $p=1.11\%$ ), each day increasing by 1,015 times the need for grafting. The return to activities was not influenced by the time to operate, time to union, Torg's classification or graft use.

**Conclusion:** Surgical treatment of a proximal fifth metatarsal fracture in professional soccer player presents good clinical outcomes and can be performed safely in these cases, with a low rate of complications.

**Keywords:** Metatarsal bones; Fracture fixation; Soccer.

