Osteochondral Lesions of the Talus Associated with Isolated Syndesmosis Injury: A Retrospective MRI and Arthroscopic Assessment in Athletes

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Summary:
Osteochondral lesions of the talar dome can be found in 57.1% of athletes sustaining isolated unstable syndesmotic injuries. These injuries are commonly anterolateral and ICRS grade II with a mean area of 12.6 ± 4.9 mm². MRI showed a sensitivity and specificity for diagnosing osteochondral lesions of the talar dome of 66.7% and 33.3%, respectively.

Data:
Background: Osteochondral lesions of the talar dome (OLT) are frequently associated with traumatic injuries. They are present in 73% of ankle fractures and 50% of ankle sprains, although a minority have a specific reported location (28%) and individual patient OLT size (7%). This is worth noting for isolated syndesmosis injuries, in which OLT patterns have been scarcely described but have been correlated with delayed time to return to sports. Objective: The present study aimed to assess the incidence and characteristics of OLT in preoperative MRI and anterior ankle arthroscopy in professional athletes with isolated unstable syndesmotic injuries undergoing surgical treatment. Methods: A retrospective chart review was performed between January 2017 and October 2021. Inclusion criteria were: (1) professional athletes, (2) ≥ 18 years old, (3) who were treated for isolated unstable syndesmosis injury with fixation within the first 12 weeks post-injury, and (4) preoperative magnetic resonance imaging (MRI) with or without arthroscopic assessment. Syndesmosis instability was defined as (1) two-ligament injuries on MRI with a positive squeeze test or (2) two-ligament injuries on MRI with a positive squeeze test and (3) isolated unstable syndesmosis injury undergoing surgical treatment. These injuries are commonly anterolateral and ICRS grade II with a mean area of 12.6 ± 4.9 mm². MRI showed a sensitivity and specificity for diagnosing OLT of 66.7% and 33.3%, respectively.

75% Survival Rate 15-Years After Arthroscopic Bone Marrow Stimulation For Osteochondral Lesions Of The Talus

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Summary:
75% of patients who undergo arthroscopic BMS for OLT do not undergo revision surgery for their OLT at an average follow-up of 15 years. From this cohort of consecutive patients from a tertiary referral centre no prognostic demographic or lesion factors for procedure survival could be identified. The present study shows that survival of BMS for OLT is fair, even in patients with less favourable les:

Purpose: The most common surgical treatment for osteochondral lesions of the talus (OLT) is arthroscopic bone marrow stimulation (BMS). Although clinical outcomes can be considered satisfactory up to mid- and long-term follow-up, there is a concern in the literature that BMS may eventually fail over time and there is a clear paucity in the literature in long-term survival data. It was therefore the primary aim of this study to assess the 10-year survival rate following arthroscopic BMS for OLT. The secondary aim was to assess possible prognostic baseline demographic and lesion factors for revision surgery. Methods: All consecutive patients who underwent arthroscopic BMS for OLT with a minimum follow-up of 10-years were cross-sectionally included from a historic database of a tertiary academic referral centre. Patients were contacted and evaluated for the occurrence of revision surgery (i.e., reoperation of OLT or joint replacement/fusion after index surgery). The cumulative survival rate was evaluated and visualized using a Kaplan-Meier survival analysis for the primary outcome, namely the survival rate at 10 years follow-up, and at final follow-up. Additionally, the mean time to revision surgery was calculated. The secondary outcome concerned the evaluation of the following prognostic baseline factors on survival: primary or non-primary (i.e., previously failed surgical treatment) lesion, lesion size (<150mm² vs. ≥150mm²), cystic lesion morphology (cystic vs. non-cystic lesion), and sex (male vs. female), and were analysed using a Cox proportional hazards model. P<0.05 was considered significant. Results: 182 patients were included for final follow-up at mean 15.0 ± 4.6 years after their index BMS procedure. 59% of patients are males, 35 ± 11.6 years at baseline, and 75% presented with a traumatic injury aetiology. Concerning lesion characteristics, 69% of patients presented with a large (>150mm²) lesion, 21% presented with a non-primary lesion, and 70% presented with a cystic lesion. Of the 182 patients, 42 patients underwent revision surgery at minimum 10-years follow-up, with a cumulative survival rate of 77% (95%-CI: 70% - 83%). At final follow-up, the cumulative survival rate was 72% (95%-CI: 65% - 78%) Average time to revision surgery was 4.3 ± 4.9 years. In terms of prognostic factors, the lesion