Arthroscopic Treatment of Chronic Osteochondral Lesions of the Talus: Long Term Results

Reference:

Scientific Literature Review

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Podiatric Relevance:
Osteochondral lesions of the talus were first described in the literature in 1856 by Alexander Munro. Although awareness and knowledge of these lesions has evolved over the years, diagnosis is usually delayed due to little or no radiographic findings. Patients usually present with nonspecific complaints that are chronic in nature and that have been treated within the realm of conservative options. Recent advances in imaging techniques have allowed physicians to detect these lesions at an earlier stage. Surgical intervention is necessary in most cases to mitigate pain, and enhanced arthroscopic techniques have allowed for improved surgical management.

Methods:
This was a retrospective study that reviewed 50 patients who had sustained osteochondral lesions of the talus. Of the 50 individuals, 27 were male and 23 were female, averaging 32 years of age. The mean follow-up was 71 months. Inclusion criteria included sub-acute and/or chronic osteochondral lesions of the talus with no prior ankle injuries or surgery. Each patient was treated with a minimum of 4 months conservative therapy prior to arthroscopic intervention. Surgical treatments included drilling of the osteochondral lesions of the talus (n=4), excision of osteochondral lesions of the talus and abrasion arthroplasty (n=6), and excision of osteochondral lesions of the talus with drilling (n=40). All patients were evaluated using 3 separate scoring systems including the Alexander, modified Weber, and American Orthopaedic Foot and Ankle Society (AOFAS) Ankle/Hindfoot scores. Plain radiographic films, CAT scans and MRI studies were also evaluated.

Results:
The Alexander score revealed 32% excellent, 40% good, 20% fair, and 8% poor results. The modified Weber score revealed 38% excellent, 26% good, 30% fair, and 6% poor results. All patients returned to their pre-injury activity level, however 12% had to modify their activities. There was no correlation with clinical outcome when examining pre-op CT or MRI stage, location of the lesion based on the Weber score, sex, age, laterality, or length of follow up. In comparison, arthroscopic surgical grade did produce correlation with clinical outcome. At final follow up, patients with stage 0 or I arthritis (based on radiographic findings) had better outcomes that those with stage II or III arthritis.

Conclusion:
Good or excellent results were noted with arthroscopic treatment of chronic osteochondral lesions. However, pain and disability may persist in some patients, particularly those noted to have unstable osteochondral defects at the time of arthroscopy. Additionally, this study notes that significant correlation exists between the arthroscopic classification of lesions and clinical outcomes.