Effectiveness of hyaluronic acid injection after failed arthroscopic microfracture in osteochondral lesion of the talus

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Category: Ankle, Arthroscopy

Keywords: hyaluronic acid; osteochondral lesion of the talus;

Introduction/Purpose: Non-operative treatment options with symptomatic OLT after failed primary arthroscopic treatment may be treated by various methods such as analgesics, anti-inflammatory drug, steroid injection, Platelet rich plasma (PRP) injection and hyaluronic acid (HA) injection. HA injection could be treated OLT besides osteoarthritis on knee or ankle joint. Effect of HA is viscoelastic and lubricating properties primarily, and other biomechanical effect can be considered. Purpose of this study is to evaluate the clinical outcomes of intra-articular HA injection in the patients with recurrent pain after the arthroscopic microfracture for OLT.

Methods: This study included 20 patients who received three weekly injections of intra-articular HA after arthroscopic microfracture for OLT between June 2014 and August 2016. All patients had persistent pain for more than 3 months after the index surgery. The patients were followed for 16.7 months (range: 4.6-30.9). At each visit, the efficacy of HA injection in reducing pain was evaluated by a Visual Analog Scale (VAS). In addition, subjective satisfactions were assessed by the Alexander scale.

Results: The mean period from the arthroscopic microfracture to the intra-articular HA injection was 26.5 months (range: 6.0-87.0). Mean VAS scores decreased from 6.7 ± 1.1 at a pre-injection to 3.8 ± 2.3 at post-injection six months (p = 0.02). According to the Alexander scale, there were 65.0% (13/20) good, 25.0% (5/20) fair, and 10.0% (2/20) poor results at post-injection six months. There was no severe adverse effect.

Conclusion: The HA injection may be a useful treatment option after failed arthroscopic microfracture in OLT. Further studies will be needed to evaluate long-term results.