Comparison of MRI and Arthroscopy to Evaluate the Clinical Outcome after ACI in Patients with Osteochondral Lesion of Talus

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Summary: This study investigated the correlation of a follow up MRI evaluation and follow up arthroscopic findings to the clinical outcome of surgically repaired osteochondral lesion of the talus with ACI using the modified MOCART scoring system. A second look arthroscopy is not necessary in order to evaluate the repaired talar cartilage after an ACI. MRI is a useful method for long-term follow up of patients with osteochondral lesions of the talus.

There is, as yet, reported post-operative evaluation method that is accurately correlated with the clinical outcome of repaired cartilage after an Autologous Chondrocyte Implantation (ACI). This study investigated the correlation of a follow up MRI evaluation and follow up arthroscopic findings to the clinical outcome of surgically repaired osteochondral lesion of the talus with ACI using the modified MOCART scoring system. We enrolled 21 consecutive patients who have received ACI out of a group of patients who were previously diagnosed with an osteochondral lesion of the talus. Prior to the ACI operation, an MRI of the affected joint was obtained. In addition, the AOFAS hindfoot-ankle score, VAS score, and Hannover score were all measured.

One year after the surgery, a follow up MRI was obtained and a second look arthroscopy was performed. The clinical outcomes were measured again in order to evaluate the differences in clinical status. Although the follow up arthroscopic findings of the repaired osteochondral lesion of the talus showed better correlation with the clinical outcome when used with the modified MOCART scoring system, the higher correlation occurred only within a statistical error range, thus making the correlation not significantly different from the one determined on MRI. Therefore, a second look arthroscopy is not necessary in order to evaluate the repaired talar cartilage after an ACI. MRI is a useful method for long-term follow up of patients with osteochondral lesions of the talus.