

How Consistent are the MRI Findings and the Clinical Outcomes after Meniscus Repair?

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Objectives: The meniscal repair is a preferred treatment whenever possible after meniscus tear. There are reports in the literature that MRI assessment is not useful to evaluate healing of the meniscus after repair. However, we have not found any study which compares the clinical outcomes of meniscus repair according to the MRI findings. The purpose of this study was to compare the MRI features and the clinical outcomes after meniscus repair.

Methods: 32 patients underwent meniscus repair between January 2011 and June 2013. Twenty three of them accepted a control MRI examination at last follow-up visit. One patient was more than 130 kg in weight so it was not possible to perform MRI examination in our institution. Therefore, twenty-two patients (17 male, 5 female) were included in this study. The mean age was 31.81 (18-48). Preoperative clinical and radiological findings were obtained from the hospital registry. At last follow-up, the clinical examination and MRI assessment were performed. The results were compared statistically with the ANOVA method.

Results: MRI assessment, obtained at the last follow-up, was performed blindly by the radiology specialist and senior surgeon and any conflicts between the two assessments were settled by using the preoperative MRI findings. In 10 patients (45.45%), the MRI examination revealed normal/nearly normal meniscal signal alteration, in three (13.64%), incomplete tear and in nine (40.91%), a vertical/complex tear signal located in the previously torn meniscus area. Post-operatively the mean Lysholm score was 91.40 ± 10.57 and Tegner activity score, 4.59 ± 1.62 . Also, the Lysholm score (91.5 ± 12.44 , 94.33 ± 5.50 and 90.33 ± 10.34 , respectively) and Tegner activity score (4.2 ± 1.87 , 6 ± 1.00 and 4.5 ± 1.33 , respectively) were evaluated in each group separately, however the difference was not statistically significant ($p > 0.05$).

Conclusion: In the present study, there was no correlation between the MRI signals and clinical outcomes. The Lysholm score was found to be over 90 in 20 of the 22 knees in this series. In conclusion, the findings reveal that the meniscus fulfills its function as normal or nearly normal even though the MRI findings fail to prove healing, in the mean 19.5 months' period postoperatively.

The Orthopaedic Journal of Sports Medicine, 2(11)(suppl 3)

DOI: 10.1177/2325967114S00132

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