

Paper #228

Evaluation of Healing After Medial Meniscal Root Repair by Using Second-Look Arthroscopy, Clinical and Radiological Criteria

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Summary:

The successful healing rate was 69.7% after repair of MMRTs and the stable healed group showed better clinical outcomes and less degenerative change progression than the unhealed group.

Abstract:

Background

Previous studies have reported various healing rates (0% to 100%) as evaluated by second-look arthroscopy after repair of medial meniscal root tears (MMRTs). Such variable results might provoke suspicion of the necessity for repair. Furthermore, the effect of meniscal healing on the clinical outcomes has not been reported.

Purpose

To more precisely determine the healing rate of repaired MMRTs through the trans-septal portal, which could provide objective visualization of the healed meniscus, and to identify the effect of meniscal healing on the clinical and radiological outcomes.

Study Design: Case Series

Materials And Methods

Between June 2010 and April 2015, 56 patients underwent pull-out suture for MMRT. The Lysholm score, Hospital for Special Surgery(HSS) score, International Knee Documentation Committee(IKDC) subjective score, medial joint space height, and Kellgren-Lawrence(K-L) grade were evaluated. Thirty-three patients underwent second-look arthroscopy and were divided into a "stable healed group" and "unhealed group" according to their healing status, as evaluated through the trans-septal portal. The intraoperative, clinical, and radiological outcomes of the two groups were compared.

Results

All other clinical outcomes improved. However, medial joint space became significantly narrower ($p<0.001$), and 23 patients (41%) showed K-L grade progression. Based on second-look arthroscopy, 23 patients (69.7%) were classified into stable healed group and 10 (30.3%) into unhealed group. Stable healed group showed a higher HSS score ($p=0.023$), IKDC subjective score ($p=0.031$), and successful microfracture rate ($p=0.023$), with less progression of medial joint space narrowing ($p<0.001$) and K-L grade ($p<0.001$).

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Conclusion

Despite a degenerative change progression, clinical outcomes were improved. The successful healing rate was 69.7% after repair of MMRTs. The stable healed group showed better clinical outcomes and less degenerative change progression than the unhealed group.