Results of Meniscus Repair for the Hypermobile Medial Meniscus

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Objectives: There have been very few studies on hypermobile lateral meniscus, but hypermobility of the medial meniscus has not been reported; the latter is more common in our practice. It is characterized by lax peripheral attachment of the middle 1/3 of the medial meniscus without a tear existing. In its most severe form (grade III) the meniscus can be displaced to the middle of the plateau and everted more than 60 degrees by probing the meniscocapsular attachment. The purpose of the present study is to analyse the clinical features of hypermobile medial meniscus and the results of meniscus repair.

Methods: 14 patients (14 knees; 10 right) underwent arthroscopic meniscal repair for hypermobile medial meniscus. Men and women were equally affected; average age was 28 (14-46). The mean duration of symptoms was 18 (2-96) months. Six cases (43 %) had no history of trauma. The most common symptoms were medial joint line pain (n:14), locking (n:9), giving way (n:9), rest pain (n:9) and inability to squat (n:5). The most common clinical findings were medial joint line tenderness (n:11), positive McMurray's test (n:9), medial retinacular tenderness (n:6), and effusion (n:3). 13 patients were rated as poor by the Lysholm scale; average 52(35-85), average Tegner activity level was 5.6 (3-9). MRI, available for eight patients, did not show any spesific findings. Arthroscopy did not reveal any other lesions to explain the mechanical symptoms. SPSS 16,00 for Windows (Statistical Program for the Social Services Inc, Chicago, IL, USA) program was used for statistical analysis. Continuous variables were defined as mean ± standard derivation. Variables were tested for normal distribution by using the Kolmogorov–Smirnow test. Differences between the groups were assessed by using unpaired t-test or Mann–Whitney U-test instead, if continuous variables did not have normal distribution. Paired sample t-test was used to compare continuous variables (data of Tegner and Lysholm scores, preoperative and at last control). $P < 0.05$ was accepted as statistically significant.

Results: All the patients were available for follow-up; average 32 (6-59) months. 11 patients (78 %) had no mechanical symptoms. Patients' own evaluation was; 3 very good, 7 good, 3 fair and 1 poor. 13 patients were better. At follow-up, significant improvement was obtained in Lysholm score which was 84(52-100) in average ($p<0.01$) ; 9 (64 %) good-excellent,4 (28%) fair and 1 (7%) poor. Tegner levels were almost regained: Decrease by 1 grade (4.7 in average (1-9)) ($p=0.026$). Despite satisfactory results, more than half had minor symptoms and findings.

Conclusion: Hypermobile medial meniscus is characterized by medial pain and mechanical symptoms. Two types can be distinguished: traumatic and atraumatic. For significant hypermobility, the meniscus should be stabilized by repair. Patients benefit from repair, but more than half continue to have minor symptoms.

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