ISAKOS

International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine

10th Biennial ISAKOS Congress • June 7-11, 2015 • Lyon, France

Paper #27

Long-Term Results of Arthroscopic Reshaping With or Without Repair of the Peripheral Tear for Symptomatic Discoid Lateral Meniscus in Children

Jin Hwan Ahn, MD, KOREA
Sang Hak Lee, MD, PhD, KOREA
Kyoung Ho Yoon, MD, PhD, Prof., KOREA
Joon Ho Wang, MD, PhD, KOREA

Center for Joint Diseases and Rheumatism, Kyung Hee University Hospital at Gangdong
Seoul, KOREA

Summary:
In the long-term clinical and radiographic results of arthroscopic reshaping for the treatment of symptomatic discoid lateral meniscus in children, the subtotal meniscectomy group had significantly increased degenerative change by radiographic findings versus partial meniscectomy with or without repair groups at a mean of 10.1 years.

Abstract:
PURPOSE
This study assessed the long-term clinical and radiographic results of arthroscopic reshaping for the treatment of symptomatic discoid lateral meniscus in children. We hypothesized that the development of degenerative changes after arthroscopic treatment over a long-term follow-up would depend on the maintaining an adequate stable rim of meniscal tissue.

METHODS
This study included 38 children (48 knees) who underwent arthroscopic surgery for symptomatic discoid lateral meniscus. The mean age at operation was 9.9 years (range, 4 to 15 years), and the mean follow-up period was 10.1 years (range, 8 to 14 years). Arthroscopic partial meniscectomy was performed in 22 knees (group A); partial meniscectomy with repair, in 18 knees (group B); and subtotal meniscectomy, in 8 knees (group C). Clinical and radiographic results were evaluated preoperatively and at the final follow-up.

RESULT
According to the scale of Ikeuchi, 94% of cases showed excellent or good results clinically. At the final follow-up, the median Tegner activity level was 7 (range, 4–10). The mean Lysholm knee score improved from 74.9 ± 10.6 to 97.6 ± 4.0, and the mean Hospital for Special Surgery score improved from 80.8 ± 8.9 to 97.8 ± 3.6 ($P < 0.0001$). At the final follow-up, radiographic evaluation revealed the development of minor osteophytes in the lateral compartment of 18 knees and moderate joint space narrowing with spur formation in 1 knee. In addition, degenerative changes were observed in 23% of cases in group A, 39% of cases in group B, and 88% of cases in group C. Group C showed significantly greater progression of degenerative change than group A or B.

CONCLUSION
The described arthroscopic techniques for treating children with symptomatic discoid lateral meniscus led to satisfactory clinical outcomes after a mean of 10.1 years. However, progressive degenerative changes appeared in 40% of the patients. The subtotal meniscectomy group had significantly increased degenerative change by radiographic findings versus partial meniscectomy with or without repair groups at a mean of 10.1 years, thereby better matching the hypothesis.