Mid-term results of arthroscopic remodelling combined with peripheral repair in children with unstable discoid meniscus

Abstract

Introduction: The traditional treatment of unstable symptomatic discoid meniscus has been total or subtotal meniscectomy. However, long-term studies show that the results are poor. The aim of this study was to evaluate the clinical outcomes and survival of arthroscopic saucerization combined with peripheral repair for the treatment of symptomatic discoid meniscus in children.

Methods: Patients≤18 years with discoid meniscus and a peripheral lesion treated between January 2012 and January 2018 were analyzed. Clinical results were evaluated using the Ikeuchi, Pedi-IKDC and Lysholm scales. The survival analysis was performed with the Kaplan-Meier method.

Results: Eighteen patients (18 knees) were treated in the evaluated period. The average age at the time of surgery was 11.1±3.8 years. The average follow-up was 40.4±21.2 months. An average of 3.4±1 meniscal sutures (range, 2 to 6) was used. Repairs were carried out with a combination of inside-out and outside-inside techniques as dictated by the configuration of the injury. Sixteen patients could be evaluated functionally (2 lost of follow-up). Four patients presented mechanical symptoms. One was treated conservatively with physical therapy and 3 (18.8%) required further surgical treatment (subtotal meniscectomy). According to the Ikeuchi scale 12 (75%) had excellent results, one (6.2%) good and 3 (18.8%) poor (repair failure). The average Pedi-IKDC and Lysholm scores were 98.3±2 and

98.7±2.9 respectively at the last follow-up. The overall Kaplan-Meier survival probabilities after repair were 93.7% at one year, and 85.9% at 2 years.

Conclusions: Mid-term outcomes of saucerization in conjunction with meniscal repair are encouraging for children with a symptomatic unstable discoid meniscus.

Keywords: Children; Discoid meniscus; Meniscal repair; Menisco discoide; Niños; Reparación meniscal; Saucerización; Saucerization.

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