

Paper #116

Clinical Outcomes after Conservative Treatment of Hip Microinstability

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Summary:

Hip microinstability is an increasingly diagnosed cause of hip pain in the young female. While physical therapy is often recommended as the first line of treatment, the outcomes of rehabilitation are unknown. After a formal rehabilitation program, only 31.9% of 47 patients studied, who were initially diagnosed with hip instability, required arthroscopic management, specifically capsular plication

Abstract:

Introduction

Hip microinstability has been recently described as a cause of hip pain in the non-arthritic hip, especially in young females. Patients typically present with a vague anterior pain, made worse in hip extension and external rotation activities. While physical therapy (PT) is recommended as the first line of treatment, the outcomes of rehabilitation for the management of hip microinstability are unknown.

Methods

A retrospective review of charts was performed between January 2013 and July 2016 at a university sports medicine practice that has an emphasis on hip related disorders. All patients older than 18 years presenting with hip microinstability who were initially treated with PT were enrolled in this study. The diagnosis of hip microinstability was established by physical examination, pain relief of at least 50% with image guided intra-articular injection and standard radiographs that excluded gross signs of femoroacetabular impingement (FAI) and dysplasia. Formal physical therapy, twice a week for a minimum 6 weeks, in conjunction with a home exercise program, focused on strengthening of the hip and Core muscles.

Results

Forty-seven patients (all females) with an average age of 32.3 +10.3 years were studied. Eleven patients (23.4%) reported an acute onset of symptoms, 5 (10.6%) reported a traumatic onset, 7 (14.9%) patients reported onset related to pregnancy / childbirth, and 24 (51.1%) patients reported an insidious onset. Mean range of motion of the affected hip was: flexion 131.6o +17.1, internal rotation 31.9o +17.2, and external rotation 60.2o +16.4. Mean center-edge angle was 32.2o + 7.7 (range, 19-46). Patients were followed for 31.8 months + 22.1. Fifteen (31.9%) patients underwent surgery after failing PT. Of the 32 patients who were treated conservatively, 20 (42.5%) reported significant improvement of their symptoms, 11 (23.4%) patients reported small or no improvement, and 1 (2.1%) patient died in a bike accident 2 months after evaluation. High-level athletes (8 patients) were more likely to undergo surgery (50 vs 28.2%).

Discussion/Conclusion

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The diagnosis of hip microinstability is challenging. Physical examination testing includes maneuvers involving extension and external rotation, which stress the iliofemoral ligament and displace the femoral head anteriorly eliciting pain.

Despite good clinical outcomes with capsular hip plication, the success rate of non-operative treatment for hip microinstability has not been reported. Certainly, it would be preferable to treat a patient without the need of surgery if good outcomes are achievable. The rationale of conservative treatment of hip microinstability is similar to the shoulder. In the setting of atraumatic multi-directional instability of the shoulder, the recommended treatment is PT, as this may improve the function of the dynamic stabilizers of the joint – the peri-articular muscles. The hip joint may be an analogous situation. In conclusion, a formal rehabilitation program, consisting of PT and a home exercise program, benefited 42% of hip microinstability patients, while only a third of those who presented with hip instability that were initially referred for PT ultimately came to arthroscopic stabilization. The data would suggest that hip and core strengthening should be the first line of treatment for hip microinstability.