Abstract

Background: Legg-Calve-Perthes is a hip disorder caused by varying degrees of ischemia and necrosis of the femoral head, secondary to alterations in the circulation and intraarticular pressure of the femoral head. The evolution and outcome of this disease are variable. The goal of treatment is to avoid sequels in the femoral head and neck and in the acetabulum, achieving a consistent and mobile joint. The only way to ensure adequate long-term outcome is to try to maintain the sphericity of the femoral head and the acetabulum consistency, either by conservative or surgical treatment according to age and stage of the disease.

Objectives: To know radiographic findings using the classification of Catterall, of patients with Legg-Calvé-Perthes stage II/III that underwent distraction with external fixators, as well as to know the time of evolution and functionality achieved with this procedure.

Patients and method: An ambispective, observational, longitudinal study included patients of six to ten years old at Pediatric Orthopedics service, Hospital Lomas Verdes, IMSS, with clinical and radiographic diagnosis of Legg-Calvé-Perthes disease. Patients were treated surgically by distraction, with a minimum three months postoperative evolution. Results: We studied 11 hips with Legg-Calvé-Perthes disease in 10 patients (9 men and one woman). The average age of presentation was 6.4 years old (range 4 to 11 years). No intraoperative or postoperative complications were reported. The patients remained with fasteners for 16.6 weeks, on average. All of them referred preoperative pain that disappear after surgery in seven cases (63.6%); pain was controlled in 30 days in three patients. Claudication was observed in all patients preoperatively, and improved after removal of fasteners and rehabilitation in a month in seven patients (63.6%); in the three remaining persisted claudication. Conclusions: Radiographic changes, in accordance with the classification of Catterall, subsequent to the placement of the distraction system, occur earlier than expected with other conservative or surgical treatment, so it decreases the duration of illness.

Keywords

Legg-Calve-Perthes disease, avascular necrosis, Catterall, distraction.