

The slipped capital femoral epiphysis in a patient with cerebral palsy following a seizure

Abstract

The slipped capital femoral epiphysis (EFS) corresponds to a shift of the upper femoral epiphysis compared to the femoral neck. This most often is done backwards and inwards under the effect of body weight. This condition occurs most commonly during puberty. We report the case of a child with cerebral palsy with spasticity of four members representing a very rare entity.

Keywords: slipped capital femoral epiphysis, cerebral palsy, surgery

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Introduction

Superior femoral epiphysiolysis (EFS) corresponds to a shift of the superior femoral epiphysis with respect to the femoral neck. Most of which is done backwards and inwards under the effect of the weight of the body. For patients with cerebral palsy can have many problems in the lower limbs and especially in the hip, which can range from a simple dysplasia to dislocation. To our knowledge, only one case of superior femoral epiphysiolysis has been described in the literature, which represents a rare entity. We report the case of epiphysiolysis in a child with cerebral palsy with spasticity of the four limbs.

Clinical observation

It is a child of 15 years, eldest of siblings of 3, resulting from a second degree consanguineous marriage, he was born prematurely at 36 weeks with notion of neonatal suffering, followed at the pediatric department for psychomotor delay with spasticity of the four limbs, admitted to us for hip pain evolving in a context of apyrexia.

The beginning of her symptomatology dates back to 5 days before her admission by the installation of a convulsive seizure causing her hip pain with impossibility to hold the sitting position without the notion of trauma, which motivated her consultation to pediatric emergencies for taking in charge.

The admission examination finds a hemodynamically and respiratory-conscious conscious child, afebrile, weight at 40kg with extreme spasticity of the four limbs flexing. Both hips were adducted flexed at 80°C with pain in the mobilization of the left hip. The radiograph of the pelvis of the face showed a shift of the superior femoral epiphysis with respect to the metaphysis at the level of the left hip (Figure 1). The child was operated on day 2 of admission with a screw in situ (Figure 2). Operative follow-up was simple with radiological control, and the child was summoned for a month to check.

Discussion

Cerebral palsy results from damage to the developing brain of the foetus or infant. These non-progressive lesions cause a set of permanent movement and posture disorders, which are responsible for activity limitations.¹ It is important to note that these disorders are

not caused by problems in the muscles or nerves. On the other hand, a defective development or a damage to the motor sectors of the brain which disturbs the ability of the brain to adequately control movement and posture.^{2,3}



Figure 1 X-ray of the pelvis showing superior femoral epiphysiolysis on the left side (black arrow).



Figure 2 Radiograph of the pelvis in profile (frog incidence) showing the postoperative aspect after fixation in situ.

Upper femoral epiphysiolysis (EFS) is defined as sliding of the superior femoral epiphysis relative to the femoral neck. Some epidemiological and metabolic risk factors have been found,⁴ with mainly overweight.^{5,6}

The exact etiology of EFS is still unknown. It is postulated that this is a multifactorial process. The literature assumes that genetic,

biomechanical and biochemical factors play a role, as well as environmental influences.^{7,8} An important biomechanical factor is overweight, which almost all patients suffer according to the literature.⁴ For patients with cerebral palsy, disorders of the hips are frequent, which puts them at greater risk of subluxation, dislocation and pain.¹ The clinical examination is poor considering the state of the patient which requires the realization of a radiograph of the pelvis to make the diagnosis.¹

In the literature a case has been described or he has benefited from a CT scan of the hip which has shown an already closed growth cartilage hence the attitude of not operating this patient.¹

Conclusion

Superior femoral epiphysiolysis remains exceptional in children with cerebral palsy, according to our knowledge only one case has been reported in the literature and has not been operated. For us the operative indication was mainly for the pain with realization of fixation by screwing.

Acknowledgments

None.

Conflicts of interest

The authors declare there is no conflict of interest.

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