

Obturator Dislocation of the Hip: A Rare Sport Injury

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Abstract

Case Report

Dislocation of the hip, in its obturator variety, is a rare entity, especially in sports practice, it requires reduction in less than 6 hours, performed by a qualified surgeon to avoid complications, we report the case of an obturator (anteroinferior) dislocation in a 19-years-old male practicing a sport of contact.

Keywords: Hip dislocation, obturator, closed reduction, osteonecrosis.

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INTRODUCTION

Traumatic hip dislocation occurs when the ball-shaped head of the femur comes out of the cup-shaped acetabulum of the pelvis, they are typically due to a high-energy trauma such a public road accident and more rarely during sport practice [1], it's a true emergency that requires immediate orthopedic evaluation and reduction.

PATIENT AND OBSERVATION

A 19-year-old patient, with no particular history, who has been practicing kick boxing and gets a hit while practicing. He immediately had a functional impotence of his left lower limb, fixed in flexion / abduction / external rotation of hip, and flexion of the knee.

Admitted to H4 in hospital, the clinical examination objectified the vicious attitude of his limb (figure 1), without associated vascular lesions.

A conventional pelvic x-ray was taken and revealed the presence of an antero-inferior dislocation of the left hip (figure 2).

Emergency reduction under sedation was performed in using the following maneuvers: initial traction in the axis of the limb followed by flexion / internal rotation / abduction while maintaining traction.

A follow-up x-ray confirmed the reduction of dislocation and additional computed tomography ruled out the existence of associated lesions and/or intra-articular fragments (figure 4 and 5).

A four weeks discharge was prescribed under cover preventive anti-coagulation. The full weight bearing was allowed at eight weeks and practicing sport at 12 weeks.

Follow up for two years after the accident showed that the patient was pain free with full range of motion. There were no changes suggestive of avascular necrosis of the femoral head.



Fig-1: The vicious attitude of the limb fixed in flexion / abduction / external rotation of hip, and flexion of the knee



Fig-2: A conventional pelvic x-ray showing an obturator hip dislocation



Fig-3: The attitude of the limb after reduction of the obturator hip dislocation



Fig-4: A conventional pelvic x-ray showing the reduction of the obturator hip dislocation

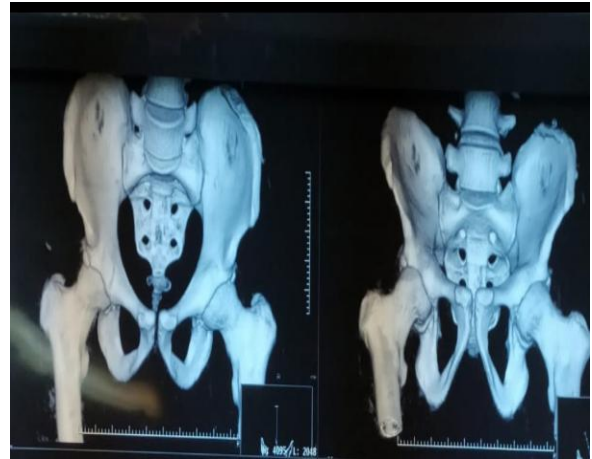


Fig-5: Computed tomography ruled out the existence of associated lesions and/or intra-articular fragments

DISCUSSION

Anterior hip dislocations are divided into two types according to the position of the femoral head: pubic or superior and obturator or inferior. The variety obturator is observed in 5 to 10% of cases [2].

The lower incidence of anterior dislocation may be due to in part to the strong anterior capsule and the Y-shaped ligament of Bigelow [2].

The mechanism reported for the occurrence of this type of dislocation involves a flexed hip in abduction and external rotation [3]. Road traffic accidents were responsible for the majority of anterior obturator dislocations of the hip with dashboard impact [4].

Associated lesions are not rare. Cartilaginous damage of the femoral head is frequent according to an arthroscopic study after hip dislocation Ilizaliturri et al. [5]; these are posterior notches in anterior dislocations.

Capsular lesions can lead to irreducibility of the dislocation by phenomenon of incarceration [6]. Also, but exceptionally, the anterior dislocation may be responsible for nerve damage of obturator and femoral nerve [7].

The treatment of obturator dislocations is orthopedic. The reduction must be carried out urgently after a radiological assessment. This requires general anesthesia. There is no consensus about the reduction methods; Epstein [8] propose traction in the femur axis followed by progressive flexion of the hip in internal rotation and abduction, while maintaining traction.

In addition, some authors [9] report the need of a post-reduction traction of three weeks followed by discharge from 6 to 8 weeks, attitude aimed at reducing the risk of cephalic necrosis. However, there is no argument defending this practice.

Catonné et al. [10] recommend early partial weight bearing then total weight bearing at day 15 with eversion of external rotation for three weeks. The outcome of an isolated hip dislocation is often favorable in 85 to 100% of cases according to the authors [11].

The essential complications are necrosis of the femoral head and coxarthrosis. The frequency of necrosis is 30% in adults [12]. But this figure mainly concerns dislocations associated with a fracture of the acetabulum or the femoral head; the rate of necrosis during isolated dislocations is probably lower [13]. The rate of avascular necrosis may be affected by the time the femoral head remains dislocated [14]. In our case, the reduction was made within 3 hours, due to a diagnosis early and atraumatic reduction.

Posttraumatic coxarthrosis is a common long-term complication of dislocations and can happen even in the absence of necrosis [15]. With a follow-up of 15 months this complication did not occur in our patient.

CONCLUSION

Obturator dislocation of the hip in adults is rare. Its rarity is due to the inherent stability of the joint, in this condition, early diagnosis and reduction under general anesthesia should be done to prevent further complications.

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