

## **Obturator Dislocation of the Hip: A Rare Variety**

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**Abstract:** The anterior traumatic dislocations of the hip without fracture of the acetabulum or the femoral head are rare the obturator variety is exceptional. We report the case of a 29-year-old patient who has an obturator hip dislocation associated with a contralateral fracture of the femoral neck, due to a road accident, successfully reduced urgently

**Keywords:** Dislocation, obturator, hip.

### **INTRODUCTION**

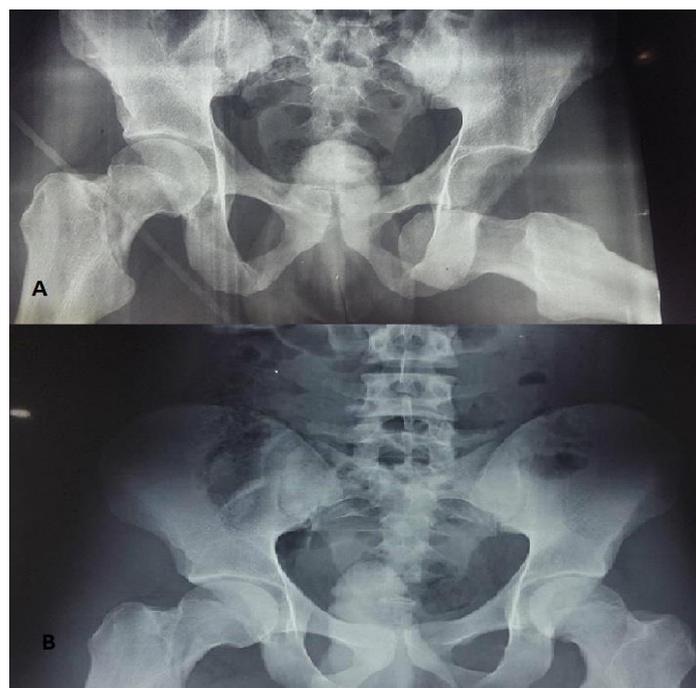
The obturating anterior dislocation of the hip is very rare in orthopedic surgery; it represents 15% of dislocations of the hip. rarely pure, it occurs after a high energy trauma. The prognostic functional is related to the risk of necrosis the femoral head and hip osteoarthritis. We report the case of a 29-year-old patient who has an obturator hip dislocation reduced with success.

### **CASE REPORT**

Traumatic anterior dislocations of the hip without fracture of the acetabulum or the femoral head are rare, the obturator variety is exceptional. They are often due to high energy pathway accidents. Reducing this type of dislocation should be done with caution because of the high risk of femoral neck fracture during hip manipulation.

We report the case of a 29-year-old patient who has an obturator hip dislocation associated with a fracture of the contralateral femoral neck (Figure 1 A), due to a road accident, reduced urgently by traction

with abduction then internal rotation by gently bringing the limb into adduction. The hip was stable after the reduction which was confirmed by a control X-ray (Figure 1 B).



**Fig-1: (A) obturator dislocation associated with a fracture of contralateral's neck of the femur femur (B) dislocation reduced successfully**

## DISCUSSION

Traumatic luxations are rarely isolated. In most cases, they are associated with fractures of the acetabulum or the femoral head. The obturator dislocation represents 6 to 10% of dislocations reported in the literature [1]. The mechanism of occurrence of this entity is a movement in flexion, abduction and forced external rotation [2]. It is this mechanism that explains the dislocation in our case: The impaction was done at high speed on the inner side of the foot causing a brutal forced external rotation of the hip, the latter being in flexion. Catonné *et al.* [3] reported 2 similar cases in a water ski accident.

The anterior capsular lesions are constant [4]. These lesions can lead to button-hole irreducibility [5]. Also, osteo-articular lesions are very frequent and depend on the mechanism and the violence of the initial trauma. Fractures of the femoral head would occur in more than 50% of anterior dislocations [3]. The cartilaginous lesions are found in 63% of the cases according to the series reported in the literature [3]. Some authors practice systematic arthroscopy after reduction, given the high frequency of intra-articular foreign bodies and which may go unnoticed on the CT scan [4]. Hematomas can occur in case of vascular injury or even osteonecrosis of the femoral head in case of involvement of circumflex vessels.

The treatment of isolated obturator dislocations is orthopedic. This reduction can be difficult if the patient is muscular. It is recommended to practice it under general anesthesia with curarization and it is essential not to cause fracture of the cervix during reduction maneuvers [4]. The modalities of reduction are very much discussed in the literature. Epstein [2] and Brav [6] recommend traction in the axis of the femur followed by progressive flexion of the hip in internal rotation and abduction, while maintaining traction. Toms *et al.* [7] criticized the abduction in the reduction maneuver as the hip is already in forced abduction. They also condemned the forced internal rotation movement that would explain the fracture of the femoral neck described by some [3]. They recommend using the orthopedic table and associate with the axial traction, a lateral traction of the thigh and gradually release the traction while impregnating an internal rotation adduction movement.

These discussions draw attention to the difficulties of reduction and the high risk of complications that can lead to a surgical approach for a bloody reduction. The consequences after orthopedic or surgical reduction are not consensual. Currently there is no scientific argument that justifies the interest of traction and discharge in reducing the risk of cephalic necrosis of the femoral head [3] Catonné *et al.*

recommend an early and partial relief then total to 15 days with eviction external rotation for 3 weeks in the context of previous dislocations [3].

The risk of occurrence of cephalic necrosis increases with the delay of reduction. This risk is 30% in adults Hoogard observed 47% necrosis when the reduction time exceeded 6h [8]. But these figures mainly concern lesions associated with fractures of the acetabulum or the femoral head, this rate is certainly lower in isolated dislocations.

## CONCLUSION

Obturator dislocation without fracture is very rare. Its reduction is not always easy and can completely change the therapeutic prognosis.

## Declaration

The authors declare that they have no conflict of interest.

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