

Case Report

Traumatic Obturator Dislocation of the Hip Joint with Fracture of the Femoral Head: A Case Report and Review of the Literature

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Citation: Fekhaoui MR, Sabri EM, Mjidila A, Bassir RA, Boufettal M, et al. (2018) Traumatic Obturator Dislocation of the Hip Joint with Fracture of the Femoral Head: A Case Report and Review of the Literature. Ann Case Rep: ACRT-206. DOI: 10.29011/2574-7754/100206

Received Date: 1 October, 2018; **Accepted Date:** 12 October, 2018; **Published Date:** 22 October, 2018

Summary

The term traumatic dislocation of the hip gathers multiples types of dislocations, and more commonly, fracture-dislocations which have been subclassified. The rise of road traffic accidents with high-energy trauma increased the incidence of this traumatic injury. We report a rare case of a 34-year-old man with a traumatic obturator dislocation of the right hip with fracture of the ipsilateral femoral head as a result of a work injury. Closed reduction was done under general anesthesia. Radiograph and CT-scan showed a good reduction. Traction was applied for three weeks followed by progressive mobilization. Full weight bearing was allowed after three months. At two years' follow-up there were no signs of osteonecrosis of the femoral head and the patient regained good function.

Keywords: Femoral Head Fracture; Hip Dislocation; Obturator

Introduction

According to data recently released by the World Health Organization (WHO), road traffic accidents ranked among the top 10 leading causes of death in 2011, a reality that was not existent a decade ago. The increase of road traffic involving high-energy trauma has impacted the incidence of traumatic hip dislocation [1,2]. We report a rare case of a traumatic obturator dislocation of the right hip with fracture of the ipsilateral femoral head.

Case Presentation

A 34-year-old man was referred to the department of trauma and orthopedic surgery at Ibn Sina University Hospital two hours after a fall from height during incident in construction. On admission, patient complained about hip pain and inability to move the right lower limb. In the physical examination, the right hip was flexed to 82°, externally rotated, and abducted to 50° (Figure 1).



Figure 1: Physical Examination: the right hip was flexed to 82°, externally rotated, and abducted to 50°.

There was neither neurovascular deficiency or associated injuries. Radiograph of the pelvic revealed obturator dislocation of the right hip with fracture of the ipsilateral femoral head (Figures 2,3).

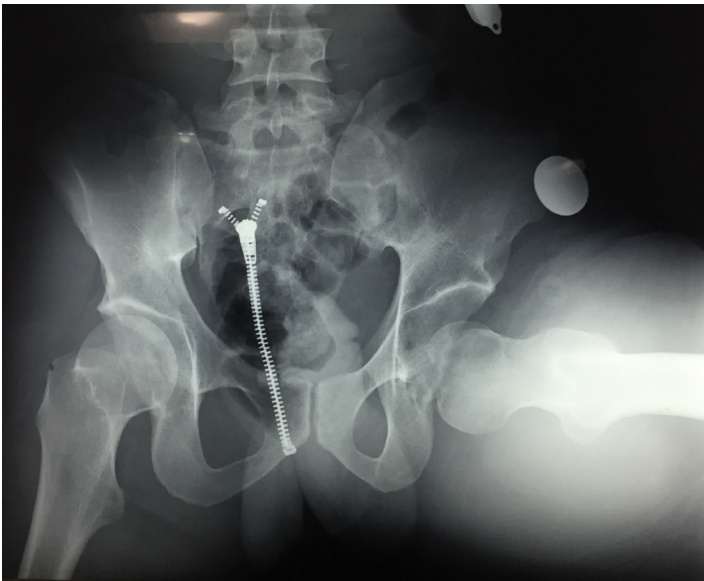


Figure 2: Radiograph of the pelvic revealed obturator dislocation of the right hip with fracture of the ipsilateral femoral head.



Figure 3: Radiograph of the pelvic revealed obturator dislocation of the right hip with fracture of the ipsilateral femoral head.

The dislocation was reduced under general anesthesia 3 hours after the trauma. Radiograph and CT-scan showed a good reduction of the dislocation and the fracture (Figures 4-6).

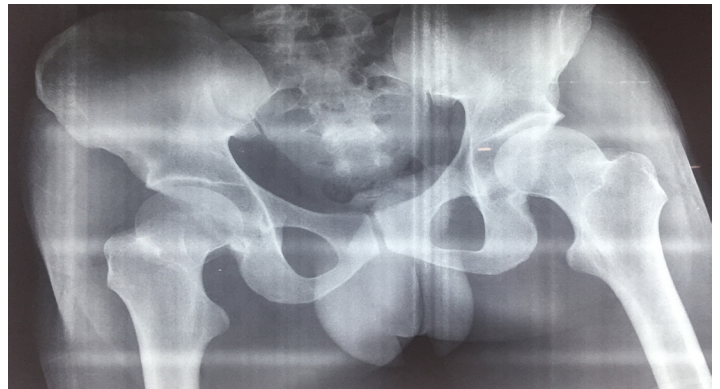


Figure 4: Radiograph and CT-scan showed a good reduction of the dislocation and the fracture.

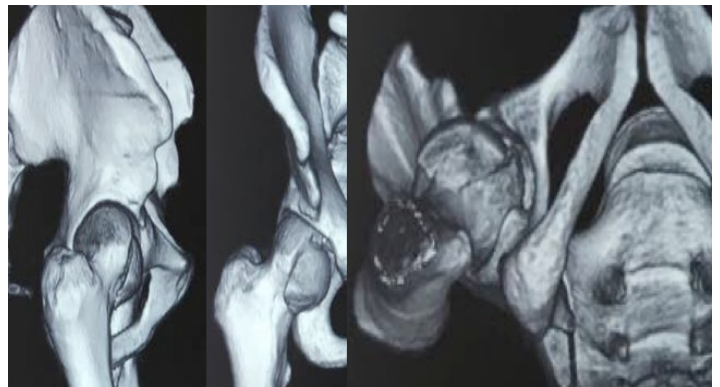


Figure 5: Radiograph and CT-scan showed a good reduction of the dislocation and the fracture.

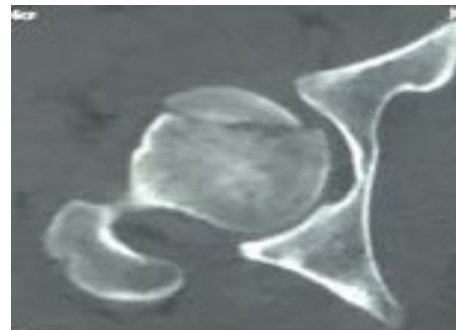


Figure 6: Radiograph and CT-scan showed a good reduction of the dislocation and the fracture.

Traction was applied for three weeks followed by progressive mobilization. Full weight bearing was allowed after three months. At two years' follow-up there were no signs of osteonecrosis of the femoral head and the patient regained good function.

Discussion

Hip dislocation is a disruption of the joint between femoral head and acetabulum, commonly classified according to the direction of the dislocation, either anterior or posterior [3]. Anterior dislocation is rare than posterior one (9-12 %), classified as superior (pubic), inferior (obturator) and perineal type. Obturator dislocations are uncommon injury, occurring in less than 5% of all traumatic hip dislocations [4-6]. This injury occurs by flexion, abduction and external rotation of the hip, besides road traffic accidents are the most common cause of this injury [5]. Femoral head fractures were usually reported to be located on the posterosuperior and lateral portions of the femoral head [7,8]. In our case it was a fracture of anterior femoral head with a direction on the oblique coronal plane. This injury must be reduced within 6 hours after trauma to reduce the risk of avascular necrosis [9] and traction is recommended for three to six weeks after, followed by progressive mobilization and loading [10,11]. Follow-up examination is necessary to anticipate arthritic changes and osteonecrosis of the femoral head [12].

Conclusion

Obturator dislocation of the hip with ipsilateral femoral head fracture is rare. Its rarity is due to the inherent stability of the joint, its deep position in the pelvis with strong ligaments and bulky muscles around the articulation. The diagnosis and treatment are crucial in the management of these injuries.

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