Immediate and early injuries associated with traumatic posterior hip dislocation: A retrospective study.

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Immediate and early injuries associated with traumatic posterior hip dislocation: A retrospective study.

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Abstract

Traumatic dislocation and fracture-dislocation of the hip is an orthopaedic emergency. A delay in recognition and reduction leads to grave complications and morbidity.

We undertook a retrospective study of 1 year and found 37 patients with posterior dislocation of the hip. Hospital records were studied for immediate and early complications and associated injuries.

Our study found that a high percentage of patients with posterior dislocation of hip had an associated significant injury, also requiring urgent attention at least, if not urgent management.

Introduction

Traumatic dislocation and fracture-dislocation of the hip is an orthopaedic emergency. Early recognition and prompt, stable reduction leads to prevention of grave complications and morbidity [1]. Prognosis worsens with the severity of injuring force as well as time between injury and reduction [2].

This injury is becoming more frequent in the Indian sub-continent with the wider growing access to vehicles, general disregard for traffic rules and lack of effective transport regulation.

Majority of the patients with traumatic hip dislocations have associated injuries like Head injury, Chest and abdominal trauma, Spine fracture, Pelvic Fractures, Acetabular fracture, Femoral Head Fracture, Femur neck fracture, Femur Shaft Fractures, Knee Ligamentous injury, Patella fracture, Proximal tibia fracture etc. [3, 4]

Methods

We looked at the hospital admission records of 2013 and found that thirty-seven patients were admitted with posterior dislocation of the hip. We went through their records to look for any associated injuries and complications.

Results

In 2013 a total of 37 patients were admitted in our hospital with dislocation of hip. All of them were posterior dislocations. There were 30 men (80%) and 7 women with an average age of 31.5 years (range 23–61 years). Twenty-six (70%) injuries involved the right extremity.

Thirty five injuries occurred in road traffic accidents, and two after a fall from height.

Of the thirty-seven patients, thirty-four were treated with closed reduction, while three irreducible hips needed open reduction. One of the thirty-four patients had to be operated because of post reduction Intra-articular bone fragment.

Out of the thirty seven patients, twenty five reached the hospital within six hours. Out of these twenty-two were reduced before the six hour deadline, while three had to be delayed till surgical and/or neurosurgical clearance could be obtained because of associated head injuries/abdominal injuries/unstable vitals.

Associated injuries were found in majority of patients but significant injuries were present in 67% patients.

Head and face injuries requiring neurosurgical, ENT or dental consult were present in seven patients (19%). Chest or abdominal trauma requiring a surgical consult were present in 3 patients (8%)

Two patients fractures of the femur in contralateral femur, none had femur fracture in ipsilateral femur, two patients had ipsilateral leg fractures, 1 had ipsilateral patellar fracture

Three patients had associated upper limb fractures. Other types of fracture or dislocation occurred in seven patients (19%).

Sciatic nerve was injured in five patients (8%).

Discussion

The majority of our patients were men involved in road traffic accidents in four-wheeled vehicles in their most productive years of life (age less than 45 years),
similar to previous observations [5, 6]. The right hip was predominantly involved, possibly because of right side driver seat as compared to more left dislocations in western countries [5, 7].

Sixty-seven percent of patients had associated significant injuries, mostly, head and visceral injuries, contralateral femur fractures, ipsilateral leg and knee injuries and upper limb injuries.

The average incidence of sciatic nerve injury reported in the literature is 10% [7]. We observed five (13.5%) patients with sciatic nerve palsy.

**Conclusion**

Hip dislocation is a rare trauma, but whenever it is present indicates very high energy trauma, with significant injuries in 67% patients, which can often be missed. Although delaying reduction increases complications and morbidity, but missing these associated injuries can not only threaten patient’s life but can cause significant disability to patient. And an extra 15-20 minutes looking for these injuries can not only save the patient’s life but can also save the doctor from future embarrassment when associated injury is detected later or the patient needs a second OT visit.

Another important thing to look for was sciatic nerve injury. It is very important to look for sciatic nerve injury before taking the patient to OT. Because the management of pre-operative and post-operative sciatic nerve dysfunction are poles apart. While pre-operative sciatic nerve weakness is managed by observation only, post-operative sciatic nerve weakness warrants urgent exploration.

**References**

Illustrations

Illustration 1

Posterior Hip Dislocation