



NEGLECTED TRAUMATIC POSTERIOR DISLOCATION OF HIP IN A SEVEN YEAR OLD CHILD: A RARE CASE REPORT

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ABSTRACT

Traumatic hip dislocation in children is an uncommon injury and a neglected hip dislocation is even rarer, particularly in developed countries. It presents a pediatric emergency. Neglected hip dislocations are still encountered in less developed and underprivileged section of the world; mainly due to poverty and lack of awareness among the patients and family members as well as lack of diagnosis by the treating physician at primary or secondary health care level. The problems associated with neglected posterior hip dislocations are, increased incidence of avascular necrosis of the femoral head and early degenerative changes in the hip joint. Delayed presentation, skeletal maturity and repeated trauma are associated with poor prognosis.

Key words: neglected, traumatic, posterior dislocation, hip, children

BACKGROUND/INTRODUCTION

Traumatic posterior dislocation of hip is an uncommon injury, and constitutes 80% of all hip dislocations in children [1]. The hip dislocations are mostly posterior due to anatomical configuration of ball and socket hip joint. However, anterior and inferior dislocations have also been reported infrequently [2]. The mechanism of injury in a posterior hip dislocation is force applied on the leg with the hip flexed and adducted. The dislocation is 25 times less common in children than in adults [3]. The minimum time period to call a hip dislocation as neglected varies in the literature, from one week [3] to six weeks [4]. The overall incidence of neglected traumatic posterior hip dislocations is extremely rare but still not so uncommon particularly in developing

countries and; there no clear guidelines for the management [5, 6].

Fresh posterior hip dislocation can be reduced easily in majority of cases, and sometimes even it gets reduced spontaneously and remains stable unless there is some soft tissue interposition or associated fracture of the acetabulum or proximal femur which is extremely rare. Achieving closed reduction is difficult in Neglected posterior hip dislocations due to soft tissue contracture [5, 7] and it may sometimes require treatment with heavy skeletal traction in abduction followed by open reduction [5, 8]. However closed reduction can be tried in hip dislocations up to three weeks old, and an open reduction should be done in older (>3 weeks) hip dislocations [3]. Failure of closed reduction or an incongruent reduction should be followed by open congruent reduction because a nonconcentric reduction is associated with poor clinical outcome [8].

In younger children, even trivial trauma can lead to hip dislocation due to soft pliable cartilage and ligamentous laxity. However, considerable force is required in older children for hip dislocation because the acetabulum is bony, less resilient and ligaments are stiffer [1]. Complications of posterior hip dislocations include avascular necrosis, premature osteoarthritis, redislocation, neurovascular damage, femoral neck and acetabular fractures and epiphyseal separation. The long term sequelae include premature epiphyseal closure, coxa magna and heterotopic calcification and recurrent dislocation.

In majority of cases the diagnosis can be confirmed by plain radiograph of the hip. A computerized tomography (CT) scan or magnetic

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resonance imaging (MRI) is required when there are associated fracture or an incongruent reduction due to intra-articular bony fragments or soft tissue interposition.



Figure 1



Figure 2

CASE PRESENTATION

A seven year old female child was brought to our orthopedic emergency department with the chief complaints of injury to her left hip fifteen days back while she slipped over the water logged muddy ground. Immediately following fall she developed pain her left groin deformity around the left hip and was unable to bear weight on her left lower limb. The child was initially treated by local osteopaths in the form of massage and manipulation; but there was no relief, few days after the injury patient also developed running nose and fever for all these patient was brought to district hospital where she was diagnosed to have pharyngitis for which she was treated there and some infective pathology around the left hip joint for which she was referred to us because there was no specialist orthopedist available in that hospital at that time.

When brought to us the child was haemodynamically stable and her left hip was flexed, adducted and internally rotated and her left lower limb was shortened compared to the normal right side [Figure - 1]. The head of left femur was palpable



in the gluteal region and the trochanter of the affected limb was proximally migrated. There was no clinical evidence of any infective pathology around the affected hip. Radiological examination including x-ray of pelvis with both hips antero-posterior[AP]view showed head of left femur being out of acetabular socket, proximally migrated and femoral shaft in adduction and internal rotation [figure-2].The clinicoradiological findings confirmed the diagnosis of posterior dislocation of left hip.. There was no significant past or family history.



Closed reduction failing which an open reduction of the hip under general anesthesia was planned. Fortunately we were able to achieve the closed reduction of the dislocated hip and the reduction achieved was congruent as seen in postreduction AP and lateral radiographs of the patient [Figure – 3a&3b]. Further management comprised of traction for three weeks along with gentle hip physiotherapy, followed by gradual partial weight bearing walk with a crutch. At one year follow-up, the child showed no complaint of hip pain and was doing well with good range of movements [figure – 4a &4b].

CONCLUSIONS

Our case study concludes that neglected cases are still seen in underdeveloped world due to poverty, ignorance, and lack of required facilities and sometimes due to lack of physician's awareness of

the condition. Gentle Closed reduction can be attempted even in neglected cases of posterior hip dislocation as it does not further jeopardize the already compromised blood supply to the femoral head, which is not the case when we do an open reduction.

CONSENT

Written informed consent was taken from the legal guardians of the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the editor in chief of this journal.

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