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NEGLECTED HIP DISLOCATION WITH POSTERIOR WALL ACETABULUM FRACTURE FOR 4 YEARS : AN UNUSUAL PRESENTATION: MANAGEMENT : A CASE REPORT.

Baljit Singh A¹, Sahil Singla B², Shaleen Sareen C³, Chander Mohan D⁴

¹ - Professor, M.S Dept. of orthopaedics, Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar, Punjab

² - Junior Resident, M.S Dept. of orthopaedics, Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar, Punjab

³ - Associate Professor, M.S Dept. of orthopaedics, Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar, Punjab

⁴ - Assistant Professor, M.S Dept. of orthopaedics, Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar, Punjab.

Corresponding Author

Sahil Singla,
Junior Resident, M.S Dept. of orthopaedics,
Sri Guru Ram Das Institute of Medical Sciences & Research,
Amritsar, Punjab.
9465948459,
sahilsinglas04@gmail.com

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Abstract

Neglected traumatic hip dislocation is not an uncommon condition seen in developing countries. In our case 26 years old male with neglected right posterior superior hip dislocation with deficit posterior acetabular wall (figure 1 and 2) with limb length discrepancy of 7cm, Harris hip score 46, presented to our hospital after 4 years of accident. He had gone multiple treatments for his right dislocated hip but was unsuccessful. In our hospital patient was managed with un-cemented total hip arthroplasty with posterior acetabular wall reconstruction. On follow up hip joint shows good range of movements with no pain and limb length discrepancy of about 1 cm and Harris hip score 82. So THR provides good results in neglected hip dislocation with acetabular fractures.

Keywords: Dislocation. Fracture. Total hip arthroplasty

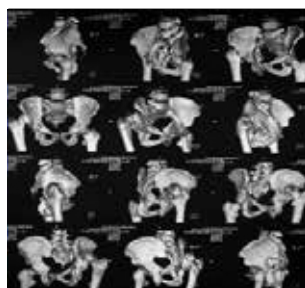
Introduction:

Posterior dislocation of the hip joint is a common injury accounting for 90% of total hip dislocations¹. A delay in diagnosis and reduction leads to preventable complications and morbidity². Traumatic dislocations of the hip basically were caused by wide and forcible adduction or abduction of the lower limb, associated with some degree of flexion or extension and internal or external rotation³. Approximately 2/3 of all fracture-dislocations of the hip occur in young adults⁴. Neglected hip dislocations occur in situations when the patient does not or cannot seek adequate medical care. As such, chronic dislocations may be observed in patients with a high pain tolerance, patients with decreased cognitive ability to recognize or verbalize their pain and patients with additional injuries that are more obvious or life-threatening⁵. In chronic dislocation the acetabulum becomes filled with fibrous tissue in unreduced dislocations, making reduction impossible by closed means⁶. Reduction of neglected dislocation of hip is not only difficult but results in avascular necrosis and arthritis. Total hip replacement (THR) is recommended for hip dislocations with duration more than 3 months⁵. Total hip replacement (THR) is challenging in neglected posterior dislocation of the hip with posterior wall and column fracture of the acetabulum with altered anatomy. When a dislocation has been neglected for a long time, compensatory and adaptive changes take place in and around the hip joint⁷. Acetabular wall fragments unite with fibrous/bony unions. Classical flexion, adduction, and the internal rotation attitude of the limb seen in a posterior dislocation might not be seen in a neglected case.

Managing posterior, superior, and medial defects with uncontained areas of the acetabulum poses technical challenges. The coverage of the cup can be achieved by medialization or use of structural graft⁸. Post traumatic arthritis of the hip can develop in 12–57% of patients after an acetabular fracture. Once it develops, salvage treatment options include arthroplasty or arthrodesis⁹.



Postero-Superior Hip Dislocation With Pseudo Acetabulum X-Ray Findings (figure 1)



CT Scan Findings (figure 2)

Case Report:

A 26 years old male with sustained trauma after road side accident. He had posterior-superior right hip dislocation with posterior acetabulum wall fracture. Patient had undergone many unsuccessful local treatment without any doctor consultation and hip remain unstable and painful. Patient was having severe hip pain but mobile with weight bearing with external support. After 4 years of injury patient presented to our hospital with antalgic gait and decreased range of movements. He had leg length discrepancy of 7 cm with harries hip score 46. Radiological investigation done shows posterior-superior right hip dislocation with deficit posterior

acetabular wall and pseudo acetabulum in right supra-acetabular region. In our hospital patient was managed with un-cemented total hip arthroplasty. Quadriceps exercises and patient mobilized without weight bearing after 3 days. Toe touch weight bearing after 6 weeks and full weight bearing after 12 weeks was done. Radiological assessment was done regularly at 6 months interval up to 2 years. Range of movements was good and painless.

Surgical Technique:

Patient was position laterally on O.T table, by posterior approach (Moore or Southern) skin incision given, gluteus maximus split, joint exposed, pseudo acetabulum around femur head over iliac bone was found and capsule attachments split, head mobilized and removed with saw and cork screw.

Then in acetabular cavity all fibrotic tissue was removed, serial reaming done, posterior deficit wall was reconstructed with graft taken from femur head, fixed with screw and k wire. Acetabular shell of size 54mm inserted fixed with 3 cancellous screws and liner of size 46mm inserted.

Femur canal prepared, stem of size 115 mm and head of size 28mm inserted.

Head reduced, capsule re-sutured and external rotators tied to greater trochanter, stability checked. limb length was found to be 1cm shorter (pre-operative length discrepancy was 7cm (figure 3)



Post Operative X-Ray (figure 3)

Discussion:

At the two-year follow-up, the patient had a pain-free, stable hip and Radiological assessment was done. The bone grafts were consolidated, and there were no radiolucent areas or osteolysis seen^{10,11}. Cement less implants are preferred on the acetabular side when the posterior column can be stabilized¹². According to some studies, closed reduction and manipulation under general anaesthesia is possible if dislocation is of a relatively short duration (2–4 weeks)¹³.

Banskota et al¹³. in their study of eight cases with neglected posterior dislocation on hip reported good results in three cases treating the hip with an open reduction.

Ilyas et al¹⁴. had reported functional outcomes after THR for neglected fracture–dislocation of the hip in their series.

In a study conducted by Berend et al¹⁵. Using a constrained THR, ten percent were primary hip replacements in patients with an abductor dysfunction secondary to trauma or neuromuscular disease. They reported promising results, which would indicate that constrained THR to be a viable alternate option with abductor dysfunction with a high dislocation risk.

Results:

Our case report concludes that uncemented total hip replacement with posterior acetabular wall reconstruction provides good results in neglected cases of acetabular fracture and hip dislocations.

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