



A CASE REPORT OF 6 WEEKS OLD NEGLECTED NECK OF FEMUR FRACTURE PATIENT TREATED WITH TOTAL HIP REPLACEMENT

Orthopaedics

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ABSTRACT

Aim- A case report of 6 Weeks old neglected neck of femur fracture patient treated with total hip replacement. **Method** – A 29 year male with 6 weeks old history of trauma came to OPD with right hip pain and inability to walk. On Xray, there was right femur neck fracture with significant up riding of greater trochanter of femur and neck resorption. Patient was planned for Total hip replacement with Dural OC Acetabulum and Long Wagner stem since osteosynthesis was a less justifiable option. Clinically patient had true shortening of around 4 cm on right side **Results:-** The patient was able to walk without support 3 month post operatively and had good hip range of motion. Active Straight leg raising was full. There was no shortening of affected limb nor any pain or difficulty in walking.

KEYWORDS

INTRODUCTION:-

Intracapsular femoral neck fractures account for 50% of all hip fractures. Most commonly found in elderly patients above 60 years of age. Most common mechanism of injury is a simple fall with force being transmitted to femoral neck via the greater trochanter, resulting in the fracture. An alternative mechanism is external rotation of the leg, with increasing tension in anterior capsule and iliofemoral ligaments. As the neck rotates, the head remains fixed and a fracture occurs. Most common clinical presentation is painful range of motion of hip with the affected leg being short and externally rotated. Treatment options include reduction and fixation, unipolar/bipolar/total hip Arthroplasty.

Clinical Presentation:-

A 29 year old male presented with complain of right hip pain and difficulty in walking since 6 weeks. Patient had alleged history of fall 6 weeks ago. Patient was able to walk with pain and some difficulty for 6 weeks then he appeared to OPD limping.

On Examination:-

Patient was limping with right lower limb shortening of 4 cm. Patient kept right lower limb in Flexion, Adduction and Internally rotated. Ecchymosis present over Right hip.

On palpation, tenderness present over anterior aspect of right hip. Crepitations felt while passive movement of hip over right hip joint.

Straight leg raising absent. Active hip flexion, abduction, adduction, internal and external rotation absent, Distal neurovascularity intact.

On radiological examination, there was non- united displaced fracture through neck of femur with upward displacement of shaft of right femur.



Figure 1- Pelvis Both Hips AP view

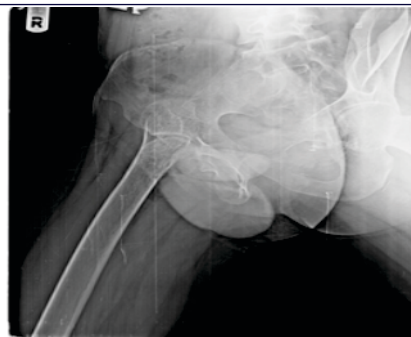


Figure 2:- Lateral view

Management:-

Patient was admitted and examined for any infection or pathological findings which were not present. MRI done which showed “Presence of non-united displaced fracture in neck of femur with Partially malrotated head in Antero-lateral direction. Edematous changes were visible around head of femur, intertrochanteric region and surrounding muscles.”

Patient was given skeletal traction in ward for about 20 days to look for any correction of shortening and to relax soft tissues. Patient was finally planned for Total hip replacement with Wagner stem.

Patient was operated with Postero-lateral approach. Considering young age of the patient, Dual Mobility Acetabulum component size 48 inserted, Wagner stem of size 15 diameter & 17cm length inserted, -3.5 mm neck length selected, 28mm Dual mobility cup inserted and fixed with instrument. Finally, head of size -3 selected and inserted into acetabulum component. Shortening corrected.

Initially there was plan for doing subtrochanteric shortening osteotomy but since after implantation trial no shortening was seen, plan for doing subtrochanteric osteotomy was cancelled.

Post-operatively, patient was advised to keep both hips in abduction for 1 month Gradual hip flexion started after 15 days and partial weight bearing started 6 weeks post-operatively.

RESULTS:-

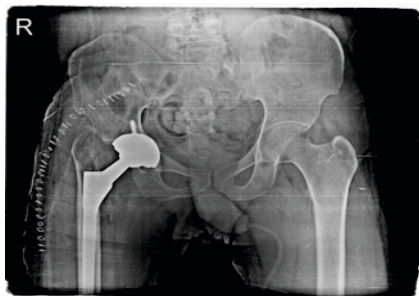


Figure 3:- Here is the immediate post operative Xray of this patient.

3 months post operatively, clinically patient was able to do static quadriceps drill, do active 90 degrees knee flexion and complete, extension. Patient was able to stand with full weight bearing without walker support and can walk with full weight bearing.

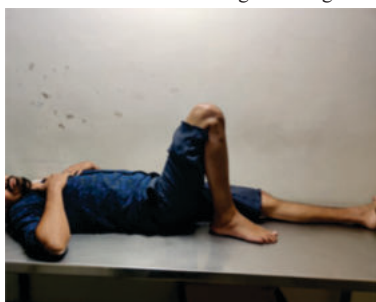


Figure 4:- Complete hip flexion post operatively



Figure 5:- Standing without support

DISCUSSION:-

Numerous methods of treatment of femoral neck fractures in young patients attempt to preserve the femoral head. Various investigators have used subtrochanteric valgus osteotomy alone or with internal fixation with acceptable results. However, shortening, limp, and decreased range of motion (ROM) are common. The risk of nonunion at the osteotomy site poses additional problems. As a result, these methods are not very popular.

Some investigators have described the use of bone grafts with internal fixation in neglected femoral neck fractures in young adults. Grafts include muscle pedicle or vascular pedicle grafts, Phe- mister-type cortical tibial grafts, or free fibular strut grafts. Muscle pedicle grafts delayed for more than 3 months after injury have a high incidence of non- union. Vascular pedicle grafts using part of the iliac crest or the fibula have shown excellent results with union rates of 91-100% in small series, but the technique is demanding and requires microsurgical facilities. As a result, Arthroplasty was selected as mode of management in this patient.

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