Neglected Dislocation of Hip: A Case Report

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CASE REPORT

• A 20 year old male patient with complaints of pain in left knee since 3 months
• History of trauma 3 months back for which he did not take any medical treatment but massage and prolonged immobilization was done.
• The patient was on complete bed rest for two months.
• After two months the patient was walking with the help of a stick but was unable to squat and sit cross-legged.
• The activities of daily living were hampered and the patient was unable to carry on with his job.
On examination:
- Attitude of the limb was abduction and external rotation.
- Inspection: ASIS is at a lower level as compared to the normal side.
- Apparent lengthening of 2 cm of the affected limb (left lower limb).
- Narath’s sign: the pulsation of the femoral artery was not palpable.
- Rom: fixed flexion deformity of 20 degrees. Left hip is fixed in abduction of 20 degrees. Further abduction up to 40 degrees was possible.
- Power: 5/5
- Bilateral dorsalis pedis present, equal and normal.
MANAGEMENT

• Radiological evaluation was done in the form of X-ray and CT Scan.
FIGURE 1: PRE OPERATIVE X-RAY OF THE PATIENT SHOWING INFERIOR DISLOCATION OF THE HIP
FIGURE 2

CT SCAN SHOWING POSTERIOR-INFERIOR DISLOCATION OF THE HIP
MANAGEMENT

• Initially skeletal traction was given.
• Lateral traction was given using schanz screw which was inserted in greater trochanter and 10 kg of weight was applied.
FIGURE 3: CLINICAL PICTURE SHOWING PATIENT GIVEN TRACTION
FIGURE 4
POST TRACTION X-RAY
OPTIONS FOR TREATMENT

• IDEAL option of treatment in this case will be ARTHROPLASTY.
• Hemiarthroplasty (uncemented modular bipolar)
• Total hip arthroplasty (uncemented): depending upon the condition of the acetabular cartilage.
• We planned for open reduction and relocation of the femoral head as patient was not willing for arthroplasty.
CHALLENGES IN OPEN REDUCTION AND RELOCATION

• Relocation of the head due to surrounding soft tissue fibrosis.
• Associated femoral head fracture.
Impending neurovascular damage

Sciatic Nerve
SURGERY
The head of femur on dissection was lying postero inferior
Subchondral fracture of the femoral head
FIGURE 5: POST RELOCATION OF HIP X-RAY
Post operative plan

• Patient was advised for continued traction for 2 weeks.
• He has been allowed for non weight bear walking for 4 weeks.
• And a close follow up will be kept for osteoarthritic changes in the femoral head and acetabulum.
• And reconsiderstion for arthroplasty as further line of management.
DISCUSSION: Anatomy

Hip Joint [Opened]
Lateral View

- Lunate surface of acetabulum
- Articular cartilage
- Head of femur
- Greater trochanter
- Neck of femur
- Intertrochanteric line
- Round ligament (ligamentum capitis)
- Acetabular labrum (fibrocartilaginous)
- Fat in acetabular fossa (covered by synovial)
- Iliopubic eminence
- Acetabular artery
- Obturator artery
- Anterior superior iliac spine
- Anterior inferior iliac spine
- Obturator membrane
- Acetabular artery
- Anterior branch of obturator artery
- Posterior branch of obturator artery
- Ischial tuberosity
- Lesser trochanter
- Transverse acetabular ligament

• Acetabulum: inverted "U" shaped articular surface.
• Ligamentum teres, with artery to femoral head, passes through middle of inverted "U".
Joint Contact Area

- 40% of femoral head is in contact with acetabulum.
- 10% of femoral head is in contact with labrum.
Acetabular Labrum

Strong fibrous ring increases femoral head coverage and contributes to hip joint stability.
The Capsule & ligaments of hip joint

- The primary capsular fibers run longitudinally and are supplemented by much stronger ligamentous condensations that run in a circular and spiral fashion.
The hip joint is inherently stable, requiring significant force to dislocate. Thus pure hip dislocation or dislocation with femoral head fracture is generally a result of high-energy trauma and is often accompanied by associated injuries.
• POSTERIOR DISLOCATION is the commonest type of dislocation.
• It has been well documented that delayed reduction of traumatic dislocation of the hip increases the risk of avascular necrosis and secondary arthritis.
REFERENCES

THANK YOU