



## MANAGEMENT OF NEGLECTED POSTERIOR DISLOCATION OF THE HIP BY GUPTA'S HEAVY TRACTION METHOD VS OPEN REDUCTION

<b>Dr. Madigonda Dinesh</b>	Junior Resident.
<b>Dr. K. Guna Nikhil</b>	Junior Resident.
<b>Dr. BH. Sai Sri Harsha</b>	Junior Resident.
<b>Dr. Y. V. Satyanarayana*</b>	Assistant Professor at GGH, Kurnool. *Corresponding Author

**ABSTRACT** **Background:** The hip joint is inherently stable, requiring significant force to dislocate. Thus, pure hip dislocations or dislocation with a femoral head fracture is generally a result of high-energy trauma and is often accompanied by associated injuries that must be recognized. Neglected traumatic posterior hip dislocation is not an uncommon condition seen in developing countries. Its treatment is fraught with great difficulties and controversies. **Case presentation:** Here we present a case of a 31-year-old male patient who presented with pain in the right hip joint, shortening of that limb and a round globular mass in the gluteal region for 6 months, he had a past history of RTA and had local native treatment for these complaints. After a thorough clinical and radiological examination, diagnosed with neglected posterior dislocation of the right hip.

**KEYWORDS :** hip joint, neglected posterior dislocation, traction, open reduction.

### Introduction:

The hip joint is inherently stable, requiring significant force to dislocate. Thus, pure hip dislocations or dislocation with femoral head fracture is generally a result of high energy trauma and is often accompanied by associated injuries that must be recognised. Neglected traumatic dislocations of the hip are rare in adults. However, in developing countries, unreduced traumatic dislocations are not uncommon.

Neglected hip dislocations occur in situations when the patient does not or cannot seek adequate medical care. Neglected dislocations may be observed in patients with high pain tolerance, patients with the decreased cognitive ability to recognize or verbalize their pain.

### CASE REPORT

A 31-year-old male patient presented with pain in the right hip joint, shortening of that limb and a round globular mass in the gluteal region for 6 months, he had a past history of RTA and had local native treatment for these complaints. There was no other contributing history. On examination, flexion, adduction and internal rotation at the right hip joint. Wasting of anterior thigh muscles, ASIS on the right side is high compared to the left side, supra trochanteric shortening, absent femoral pulse on the right side (vascular sign of Narath) with preserved distal pulses and round, bony hard, globular smooth swelling palpable in gluteal region with no neurological deficit.

### IMAGING

- True AP view of pelvic radiograph revealed the loss of congruence of the right femoral head with the roof of the acetabulum, the femoral head is smaller compared to left and the head is overlapping the roof of the acetabulum.
- After that hip CT with 2mm cuts was done. There is no evidence of intraarticular fragments, femoral head or acetabular fractures or head impaction injuries.

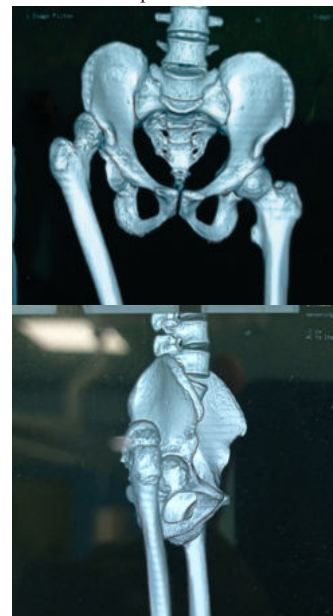


**Figure 1:** True AP view of Pelvis radiograph shows posterior

dislocation of hip, Right head appears smaller than left and overlapping the roof of the acetabulum.

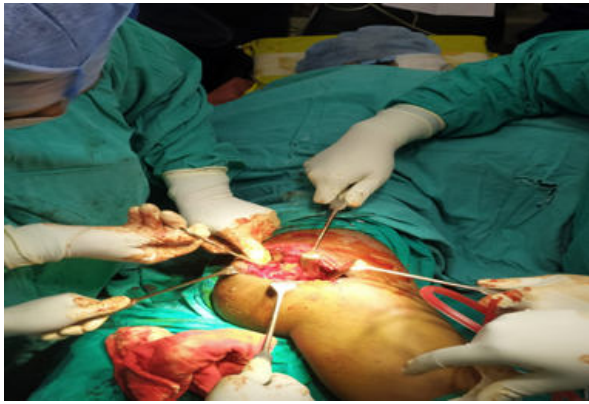


**Figure 2:** No evidence of intra articular fragments or femoral head or acetabular wall fractures in CT pelvis.



**Figure 3&4:** No evidence of intra articular fragments or femoral head

or acetabular wall fractures in CT pelvis.



**Figure 5:** Intra operative image. Posterior approach to right hip joint.

**MANAGEMENT**

- Initially we tried Gupta's method of reduction by heavy traction. We did adductor release on the right side and applied skeletal upper tibial traction with 18 kg under sedation. Serial radiographs were taken on alternate days, once the head comes at the acetabular margin, we advised slight abduction of the limb and reduced the traction weight by 3.4kg every 4th day. But the reduction was not achieved. Then the patient was prepared for surgery after obtaining written and informed consent from him.
- We planned for open reduction and debridement under spinal anesthesia, the patient was in a lateral decubitus position and opened the hip joint posteriorly. We observed that the acetabulum was filled with full of fibrous tissue and hypertrophied ligamentum teres. We debrided the acetabular cavity and excised hypertrophied ligamentum teres. Then, reduced the hip joint and fixed it with a Steinmann pin percutaneously through the femoral head into the acetabulum under fluoroscopy guidance. After a thorough saline wash, the laxated capsule was repaired and the wound closed in layers. Post-operative period was uneventful and the patient was stable.
- Postoperatively patient was advised to no weight bearing or squatting or cross-leg sitting for 6 weeks. Steinmann pin was removed after 6 weeks and hip mobilizing, quadriceps, and hamstring strengthening exercises were allowed. Partial weight bearing to full weight bearing is allowed after 3 months.



**Figure 6:** True AP view of pelvis radiograph shows reduced Right hip joint with Steinmann pin into acetabulum through femoral head



**Figure 7:** Post operative image of patient with corrected deformity and limb length



**Figure 8:** 6 month Follow up image. Patient doing well with good range of movements.



**Figure 9:** No evidence of AVN or OA hip joint at 6 month follow up

**DISCUSSION**

- Treatment of neglected hip dislocation becomes difficult with time, as the acetabulum is filled with fibrous tissue, so reduction becomes impossible by closed methods. Closed reduction and manipulation under general anesthesia could be done if the dislocation is of short duration.
- Traumatic dislocation of the hip should be reduced as early as possible. Because delay in reduction increases the chances of avascular necrosis, and posttraumatic osteoarthritis and the end result depends on the age of the patient, type of dislocation, and severity of trauma. Mehlman, in his study, reported that if the hip is dislocated for a length of time, osteonecrosis can be significantly associated. If reduction was delayed for more than 6 hours, there will 20 times higher risk of osteonecrosis.

**CONCLUSION**

- As per observation by our case study open reduction is a satisfactory treatment for neglected hip dislocation. It prevents not only deformity but also maintains limb length. In developing countries like India poverty, ignorance and malpractice by quacks are common causes of negligence.
- In our case, the outcome was good, with no evidence of avascular necrosis in MRI or osteoarthritis of the hip joint during the follow-up period. He was doing well with a good range of movements at the hip joint at 6-month follow-up.

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