RETRIEVAL OF NEGLECTED HEAD FRAGMENT IN PATIENT WITH FEMORAL PROSTHESIS: A CASE REPORT

Dr Mantu Jain*, Sanjay Kumar, Santosh Kumar**, Ritesh Runu**

*Corresponding Author, Consultant Orthopedics- Sanjeevani Family Hospital, Ekatali, Bypass Road Jharsuguda.

**Department of Orthopedics, Indra Gandhi Institute of Medical Sciences, Patna, Bihar

ABSTRACT

Failure to remove head fragment in treating fracture neck femur with femoral prosthesis is an iatrogenic problem and never been reported. A 55 year old male presented with left groin pain for one year following fracture neck femur left side and prosthesis surgery. X ray revealed the head piece which was lying anteriorly just at brim of pelvis with the femoral prosthesis well placed in the acetabulum. The piece was retrieved surgically and patient was relieved of pain. The purpose of the article is to highlight this rare complication.

Keywords: Dislocated head piece, complication, neglected, prosthesis surgery, retrieval

INTRODUCTION

Failure to remove head fragment in treating fracture neck femur with femoral prosthesis is an iatrogenic problem and never been reported. In our extensive search from electronic and print media we did not find a similar case. The purpose of the case report is to highlight such a complication.

CASE REPORT

A 55 year old male presented to us with moderate pain in left groin for 12 months. His past history revealed that he had a fracture neck femur for which a femoral prosthesis had been given about the same time treated in some remote hospital. No supporting documents and x ray records were available with the patient.

On physical examination- The patient could walk with little discomfort. There was a healed scar mark posterior aspect of hip, no obvious swelling but a hard mass felt in outer inguinal area which was slightly tender to palpate. His femoral pulsations was well felt. There was no limb length discrepancy.

Fresh Plain x ray was taken which showed an uncemented femoral prosthesis probably a bipolar prosthesis well placed in socket but we were perplexed to see a rounded shadow nearly overlapping the prosthetic head (fig 1). The shadow was similar to a femoral head but it was hard to believe a hemiarthroplasty procedure done without removal of femoral head. We got a CT scan of pelvis and found the head piece lying anterior to acetabulum abutting the true pelvis (fig 2a, b, c). Pull x rays did not reveal any shift of prosthesis nor were there any radiolucency seen on x rays.

Blood investigations were undertaken to rule out any infections including complete blood count, Erythrocyte sedimentation rate, C-reactive protein which were all within normal limit. A plan was formulated to retrieve the femoral head.

The head was palpable anteriorly and confirmed with introperative fluoroscopic ram images. A smith Peterson approach was taken and the head piece was extracted carefully under image guidance (fig 3). Postoperatively the patient was mobilized as his operative pain was decreased. He had complete relief of his groin pain.
Fig 1: Pain X ray of left hip showing a rounded shadow near prosthetic head.

Fig 2a: Scannogram of pelvis

Fig 2b: Axial cuts Ct showing head lying anteriorly

Fig 2c: 3D reconstruction image confirming the migrated head piece.

Fig 3 Intraoperative C arm images during extraction.

Fig 4: Post operative X ray picture after removal of the head piece
DISCUSSION

Femoral prosthesis for fracture neck femur is a common operation and now done at most peripheral centers. Though the procedure has some known intra op-complications like iatrogenic fractures, failure to reduce, difficulty in extraction of head from acetabular socket (which may require it to remove piece meal) yet failure to remove the head fragment leaving it insitu as in this case has never been known. We hypothesize- that the surgeon in a failed attempt to remove pushed the head for placement of prosthesis in socket. Another possibility was a fracture dislocation of head wherein the prosthesis was done leaving the head in situ. However there were no signs of malunited anterior wall fracture seen in CT scans. Our limitation was that we do not have documents to support this.

Not much has been mentioned regarding the fate of the neglected head. The head could cause compression of the femoral neurovascular structures or migrate into the true pelvis. Anterior lying head is seen in anterior dislocation of hip which is an emergency and very few cases of chronic anterior dislocation have been reported in literature. Negi et all and Singh et all have described an intertrochanteric osteotomy for these and later a total hip replacement may be required1–2.

Few case reports of head been incarcerated into pelvis have been reported following central dislocation. In such cases the cause was a medial wall fracture3.

With the surge of total hip replacement in many diseased conditions a few cases of slipped femoral trail head in the soft tissue have been mentioned4–5. Ozkan et al reported a case wherein the metallic femoral head component was lost in pelvis6.

CONCLUSION

The complication of failure to remove the head piece during prosthesis surgery is an iatrogenic complication, extremely rare and never been documented till now. The article highlights this and discuss the literature.

REFERENCES