



NEGLECTED POSTERIOR DISLOCATION OF SHOULDER AND ITS MANAGEMENT: CASE REPORT

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KEYWORDS :

1. Introduction

Posterior dislocation of shoulder is a well-defined yet rare entity and it accounts for 2% of all documented dislocations of the shoulder^{1,2}. Most of the posterior dislocations are missed on the initial examination.³⁻⁶. It is commonly associated with an impaction or “enchoche” fracture of the humeral head which causes locking of the humeral head behind the glenoid⁷. Routine radiographs of the shoulder, are also misleading in arriving at the accurate diagnosis of posterior dislocation of shoulder.

We present such a case of neglected posterior shoulder dislocation treated by open reduction and transfer of lesser tuberosity with attached subscapularis into the bony defect.

2. Case Report

A 35 year old male suffered from a single episode of seizure for which he was admitted in a private hospital. The primary care regarding the treatment of seizure was given to him. At the time of discharge patient complained of pain in left shoulder and inability to move left arm. Baseline X rays did not reveal any defect so the patient was referred to our institution with diagnosis of frozen shoulder. Patient presented at our institute 3 months later with inability to move the left upper limb.

On examination, normal deltoid contour was lost on the left shoulder, humeral head was palpable posteriorly and acromion was prominent anteriorly (Figure 1). All movements were restricted and external rotation was not possible in the left shoulder. There was no distal neurovascular deficit. His routine hematological investigations were within normal limit. AP, axillary X rays revealed posterior dislocation with impaction fracture of proximal humerus over anteromedial aspect (Reverse Hill Sach lesion) (Figure 2). Axial cuts of CT revealed impression fracture between 25-50% of the humeral head (Figure 3).

Informed written consent was obtained from the patient preoperatively. He was taken up for surgery under general anaesthesia in semi beach chair position. Anterior deltopectoral approach was used. Strap incision was used to retract anterior fibres of deltoid for better visualization of subscapularis. Biceps tendon was used as a reference point for identification of lesser tuberosity and rotator interval. Circumflex vessels were ligated, osteotomy of lesser tuberosity was performed starting from the bicipital sulcus and extending to the defect of the humeral head. The lesser tuberosity with the attached subscapularis was elevated to expose the head and the glenoid. The lesser tuberosity was fixed into the defect with transosseous suturing. Humeral head reduction was stabilised with K wires through the acromion process (figure 4). Shoulder was immobilized in slight external rotation for 2 weeks

K wires were removed 3 weeks after the surgery and active pendulum flexion and extension exercises were begun under the supervision of experienced physiotherapists. 3 weeks later, abduction, external

rotation and internal rotation exercises were initiated. Patient was kept under follow up and was assessed after every two weeks. Patient joined his profession 3 weeks after the surgical intervention. Goniometric assessment of shoulder range of motion at 6 months shows abduction of 0 -120°, forward flexion up to 130°, external rotation of 45° and internal rotation of 30° (Figure 5). X rays at 6 months revealed congruent glenohumeral joint depicting well reduced humeral head (Figure 6). Patient was then subsequently called every 6 months for routine follow up. Further improvement in range of motion of observed at 2 years follow up. (figure 7)

3. Discussion

Identification and management of posterior dislocation of shoulder still remains difficult. Unlike anterior dislocation, there is no consensus regarding the protocols for the management of posterior dislocation.

Dislocations with defects less than 25% of humeral surface are usually managed by open reduction. Defects larger than 50% are managed by arthroplasty. However there are various schools of thoughts for management for the intermediate variety (defects between 25-50%)⁸

Finkelstein⁹ proposed open reduction and transfer of lesser tuberosity. McLaughlin¹⁰ described transfer of subscapularis for defect between 25-40%, where the tendon is fixed through drill holes in the humerus. Hughes¹¹ modified the technique by doing the osteotomy of lesser tuberosity along with the attached subscapularis. The osteotomy is fixed with cancellous screws over the humerus. Other options given in the literature include rotational osteotomy of humerus and allograft reconstruction.

Our approach encompassed the ideas of McLaughlin and Hughes as we osteotomised the lesser tuberosity, but it was eventually fixed with drill holes sutures and not through screws.

The advantage of transfer of lesser tuberosity is better bony filling of the defect and avoiding screws decreases the chances of implant prominence.

4. Conclusion

Although posterior dislocation of shoulder is a rare entity, yet it is imperative that we should not miss this entity. The importance of physical examination and radiological workup including axillary view cannot be over emphasized. In our case, in spite of posterior dislocation being neglected for three months, we obtained fairly good results without any signs of avascular necrosis. This article highlights the importance of axillary views and high index of suspicion of posterior dislocation of shoulder in patients who complain of

shoulder pain following seizure episodes.

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Figure 1a - Prominent acromion process anteriorly



Figure 1b - Humeral head was prominent posteriorly



Figure 2a – AP view



Figure 2b- Axillary view



Fig 3 -CT section revealing impression fracture and posterior dislocation



Fig 4 – Post operative X ray

Figure 5a



Figure 5b



Clinical photographs revealing shoulder range of motion at 6 months follow up

Figure 6a



Figure 6b



AP and axillary views at 6 months follow up

Figure 7



Two year follow up

7. References

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