Inferior Placement Of Shoulder Hemiarthroplasty Associated With Excellent Functional Outcome

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INTRODUCTION:
Shoulder hemiarthroplasty has become the treatment for elderly patients with displaced 3-parts and 4-parts fracture head of humerus. Postoperative malposition or subluxation of implant are associated with poor functional outcome.1 We report a case of an initial postoperative inferior placement of shoulder hemiarthroplasty which subsequently reduced to its original anatomical position resulting in good functional outcome.

CASE REPORT:
We report a case of a 73-year-old lady who had a fall in her home and sustained a 4-parts proximal humerus fracture. Left shoulder hemiarthroplasty was performed for her, and by intentionally lowering the position of the humeral head by 1cm from its original anatomical humeral head height, it has led to better long term functional outcome for the patient. With an initial period of immobilization followed by physiotherapy, the initial inferior subluxation of the shoulder joint was reduced spontaneously as the humerus migrated proximally. Shoulder joint was stable and patient achieved excellent ROM in subsequent follow-ups.

Figure 1: Initial subluxation of humerus corrected by gradual proximal migration

DISCUSSION:
The final range of movement for this patient is better than most of the patients with a well fitted and well congruent shoulder hemiarthroplasty postoperatively. It is believed while attempting to achieve a well congruent glenoid-implant interface in early phase, it may lead to elements of over-tightening and overstuffing of the joint, as well as shortening of the surrounding rotator cuff structures when the scarring and fibrosis ensue, subsequently resulting in reduced ROM, especially in extreme of abduction motion. Patient mentioned above achieved 160° of shoulder abduction, without any complaint of shoulder pain or instability.

CONCLUSION:
This case report shows that even with initial inferior placement of implant, proximal migration to its anatomical position is possible without any surgical intervention, resulting in good functional outcome. This case report can serve as an initial treatment guide for the future surgeon facing the same challenge.

REFERENCES: