

## Inferior Subluxation Post Osteosynthesis of Proximal Humerus

<sup>1</sup>M.M. Hazwan ; <sup>1</sup>D.M.Hadizie

<sup>1</sup>Department of Orthopaedic, Hospital Universiti Sains Malaysia, Kota Bharu, Kelantan

### INTRODUCTION:

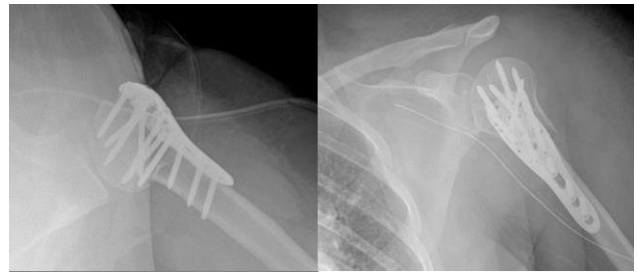
A humeral head inferior subluxation often occurs after osteosynthesis for proximal humeral fracture, but the underlying cause remains unknown. In addition, the prognosis of postoperative subluxation has not been investigated. We are going to discuss a case that has been treated in our Centre.

### REPORT:

A 44-year-old lady sustained a motor vehicle accident and sustained closed 4 parts fracture proximal left humerus fracture. Patient underwent operation open reduction and locking plate proximal humerus one day after trauma. Intraoperatively a deltopectoral approach was used. The operation was done within an acceptable time and no complication. Post operatively, there was no inferior subluxation of glenohumeral joint seen. For 1 week follow up x ray left shoulder noted inferior subluxation of glenohumeral joint. Physiotherapy was started and luckily 1 month post operation left shoulder appear to be normal back no subluxation seen, and patient regain started to regain normal shoulder function. The present study raised the possibility that the state of soft tissue damage sustained at injury, such as in the deltoid, rotator cuff muscle, or joint capsule, may have affected the onset of postoperative inferior subluxation. Significant relationship between operative time and the onset of inferior subluxation. Due to retraction of the muscle attached to the humerus and affected peripheral nerve traction and compression, which may have led to postoperative inferior subluxation.



**Figure 1:** day of trauma



**Figure 2:** after operation



**Figure 3:** 1 week after operation

### CONCLUSION:

The rate of inferior subluxation increases with increasing of Neer classification and operative intervention. It is temporary in most cases and has no significant effect on the postoperative recovery. The rate of subluxation can be reduced by reducing operation time and gentle soft tissue manipulation.

### REFERENCES:

1. Cirino CM. Incidence and risk factors for pseudosubluxation of the humeral head following proximal humerus fracture. *JSES Int.* 2022 Feb 22;6(3):338-342.
2. Furuhashi R. Risk factors and prognosis of humeral head inferior subluxation in proximal humeral fractures after osteosynthesis. *JSES Int.* 2021 Apr 29;5(4):739-744.