

Isolated Avulsion Fractures Of Lesser Tuberosity Humerus: A Case Report

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INTRODUCTION

Avulsion fracture of lesser tuberosity humerus often classified with Neer V type fracture and occurs concurrently with dislocation of the posterior shoulder joint and fracture of the proximal humerus. Isolated fractures of the lesser tuberosity humerus are extremely rare. It's reported that rate of missed diagnosis of fractures of lesser tuberosity humerus is highest for its low incidence.

MATERIALS & METHODS:

27-year-old technician has an alleged fall from height while fixing wiring after a short circuit of electrocution. He presented with right shoulder pain with limited range of movement. No obvious deformity seen over right shoulder and X-ray showed no obvious dislocation or fracture. He proceeded with CT scan of right shoulder and reported as avulsion fracture of lesser tuberosity of right humerus.



FIGURE 1: CT image of right shoulder showing isolated lesser tuberosity fracture right humerus

RESULTS:

Patient underwent surgery open reduction and screw fixation right humeral lesser tuberosity fracture via deltopectoral approach. Postoperatively patient underwent physiotherapy and eventually fracture united with no limitation of right shoulder joint range of movement.



FIGURE 2: Anteroposterior radiograph after the fixation of the lesser tuberosity with two headless fully threaded bone screws

DISCUSSIONS:

An isolated avulsion fracture of the lesser tuberosity is an uncommon injury. The lesser tuberosity is protected from direct injury by its small size and its location on the medial side of the humeral head. Therefore, the main mechanism of injury is muscular violence for such injury which has been described to occur during electroconvulsive therapy for psychiatric disorders. CT scan could be helpful for diagnosis. There is still controversy in treatment whether conservative or surgery. Operative treatment is generally recommended for displaced fractures.

CONCLUSION:

A successful functional outcome following isolated lesser tuberosity fractures requires a proper indication, good surgical technique, appropriate postoperative therapy and patient compliance. Open reduction and internal fixation provides excellent restoration of function and range of shoulder movement, with a low risk of complications.

REFERENCES:

Isolated avulsion fractures of lesser tuberosity humerus: A case report and review of the literature, *Int J Clin Exp Med*. 2014; 7(3): 780–784.