

Nonoperatively treated infraglenoid tubercle avulsion

Renjit Thomas Issac*, Hitesh Gopalan, Cherian John, Mathew Abraham, Sujith Mathew Issac

【Abstract】 Infraglenoid tubercle avulsion fractures are extremely rare injuries. We report a 38-year-old male with glenoid cavity fracture and infraglenoid tubercle avulsion of the left shoulder following a fall from bike. He refused surgery and was treated nonoperatively. Follow-up radiography and CT at 18 months revealed a malunited infraglenoid tubercle with signs of early glenohumeral osteoarthritis. He did not have shoulder

instability or pain and had a fair-good functional outcome. There are no previously published data on the anatomic outcome of nonoperatively treated displaced infraglenoid tubercle avulsion fractures based on CT.

Key words: *Tomography, X-ray computed; Infraglenoid tubercle; Avulsion*

Chin J Traumatol 2014;17(5):301-304

Scapula fractures constitute 1% of all fractures with glenoid cavity fractures comprising 10% of all scapula fractures.^{1,2} Significantly displaced glenoid fossa fractures make up 1 in 10 000 fractures and are very rare.² Infraglenoid tubercle fractures are triceps avulsion fractures and are much rarer. They are associated with traumatic anterior shoulder dislocation or can occur in isolation following sporting activities.^{3,4} Most glenoid cavity fractures are treated nonoperatively. Operative intervention is indicated in fractures associated with glenohumeral instability and articular displacement of more than 5 mm.^{5,6} To our knowledge no management protocol has been described for displaced infraglenoid avulsion fractures.

CASE REPORT

A 38-year-old chronic alcoholic male was brought to the emergency department following a fall on his shoulder from a bike moving at low speed. On examination he had a swelling and multiple abrasions on his left shoulder. He also had multiple

rib tenderness on the left side. The left arm was kept by the side of the body and any attempted movement of the left shoulder was very painful. There was no evidence of distal neurovascular injury.

Radiography and CT of the chest and shoulder revealed a glenoid fossa fracture with the fracture line starting from the inferior half of the glenoid fossa and exiting through the superior scapular notch along with avulsion of the infraglenoid tubercle and fracture of 2nd to 8th ribs on the left side (Figures 1 and 2). The head of the humerus was inside the glenoid cavity with no evidence of subluxation. In addition he also had minimal haemothorax and pulmonary contusion of left side.

Subsequent examination revealed no signs of anterior shoulder instability or inferior laxity. Though the articular displacement of the glenoid cavity fracture was less than 5 mm with no signs of glenohumeral instability, the infraglenoid tubercle was pulled inferiorly by long head of triceps more than 5 mm. The patient refused any operative intervention and conservative management with a broad arm sling was planned. On 2nd day after admission, he developed symptoms of alcohol withdrawal. In spite of violent movements in bed, his shoulder remained stable. After a week of treatment with Thiamine injection and other supportive measures, his withdrawal symptoms improved. His shoulder was supported with a broad arm sling for further one week. Pendulum exercises and passive

DOI: 10.3760/cma.j.issn.1008-1275.2014.05.011

Department of Orthopaedics, Malankara Orthodox Syrian Church Medical College, Kolenchery, Kochi, Kerala 682311, India (Issac RT, Gopalan H, John C, Abraham M)

Department of Orthopaedics, St. Thomas Hospital, Chethipuzha, Changanassery, Kerala 686104, India (Issac SM)

*Corresponding author: Tel: 91-8943550369, Email: docrenjit@gmail.com

range of motion exercises were initiated and rotator cuff strengthening exercises were started at 6 weeks.

Radiographic evaluation was done at 6 weeks, 3 months and 18 months. At 6 weeks, radiography revealed that the avulsed infraglenoid tubercle was gradually getting malunited (Figure 3). He had active lateral elevation of shoulder up to 70 degrees with moderate pain.

At 3 months, the fractures had united with the patient having minimal pain with active lateral elevation up to 90 degrees (Figure 4). Active range of motion exercises and rotator cuff strengthening exercises were continued. At 7 months, he had no pain in his shoulder with active lateral elevation of

90 degrees. At 18 months follow-up, radiography and CT evaluation revealed that all fractures had united (Figures 5 and 6). The infraglenoid tubercle was malunited to the lateral border of the scapula forming a false inferior glenoid with signs of early glenohumeral osteoarthritic changes. The patient had a lateral elevation of 100 degrees actively and 120 degrees passively with no associated pain. Throughout the course there was no evidence of anterior or inferior glenohumeral instability. He had a good result according to the University of California at Los Angeles shoulder rating scale (score 29) and a fair result according to the Constant-Murley scoring system (score 58). He was satisfied with the result and resumed his job as a clerk 3.5 months following the trauma.

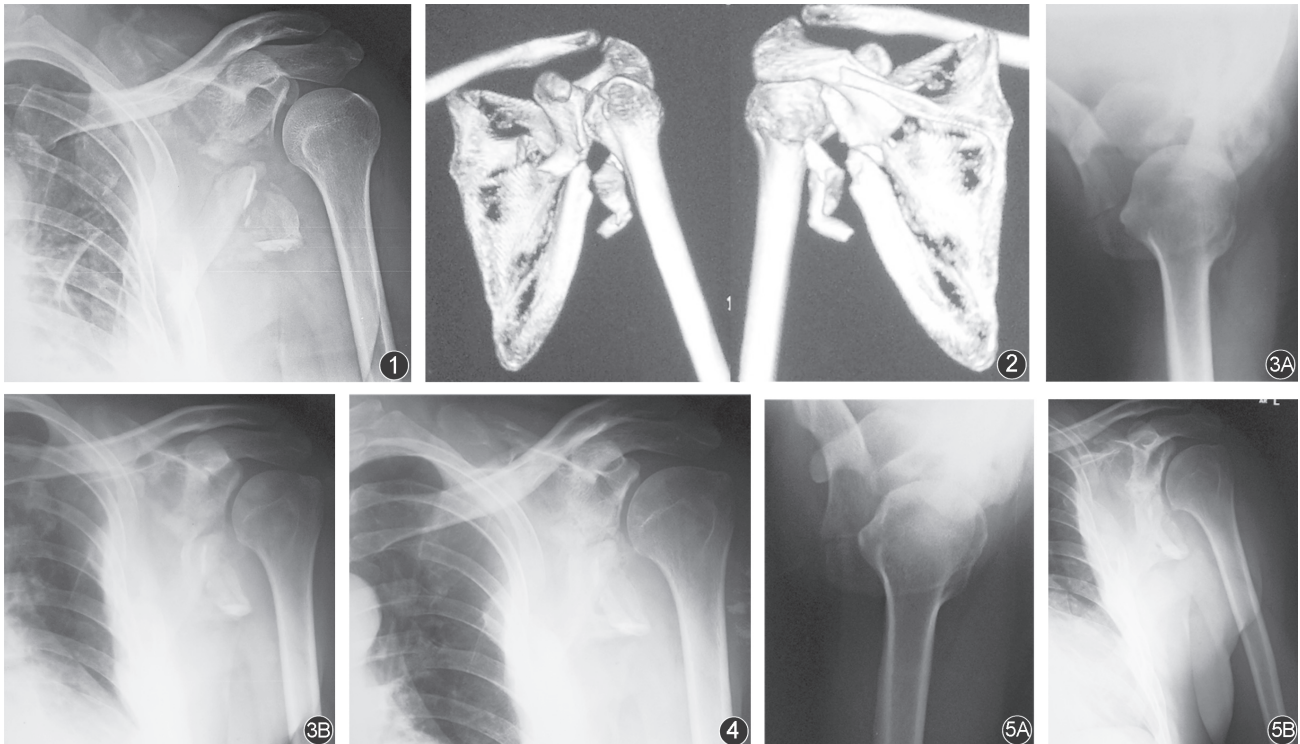


Figure 1. Anteroposterior radiograph of shoulder immediately after trauma. **Figure 2.** CT of shoulder immediately after trauma. **Figure 3.** Lateral (A) and anteroposterior (B) radiographs of shoulder 6 weeks after trauma. **Figure 4.** Anteroposterior radiograph of shoulder 3 months after trauma. **Figure 5.** Lateral (A) and anteroposterior (B) radiographs of shoulder 18 months after trauma.

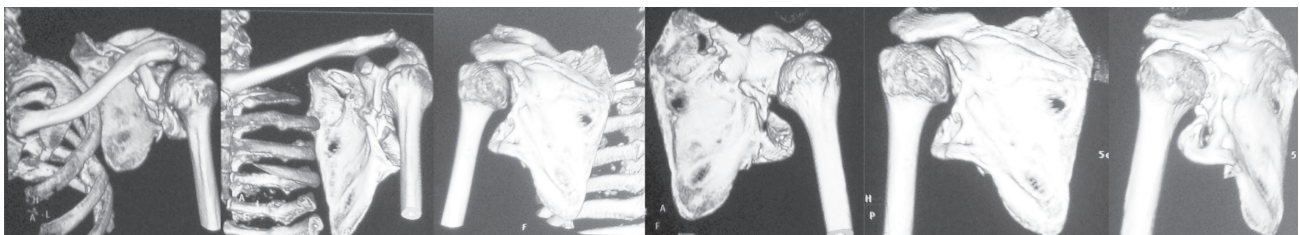


Figure 6. CT of shoulder 18 months after trauma.

Download English Version:

<https://daneshyari.com/en/article/3107198>

Download Persian Version:

<https://daneshyari.com/article/3107198>

[Daneshyari.com](https://daneshyari.com)