

Bilateral Scapular Fracture in Blunt Chest Trauma: Report of Two cases

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Introduction

A bilateral scapular fracture is a rare injury. In the literature, electrical shock or epileptic seizures are typically linked to most of the reported cases.¹ Herein, we present two cases of bilateral scapular fractures following blunt chest trauma.

Case Reports

Case 1: A 29-year-old male was involved in a motor vehicle collision. The patient was sitting in the open part of a pickup car. The vehicle rolled over and he fell off the vehicle. On examination, the patient was dyspneic with a Glasgow Coma Score (GCS) of 9/15, pulse rate of 103 bpm, blood pressure of 107/76 mmHg, and respiratory rate was 30 breaths/min. Chest examination revealed bilateral chest contusion, decreased air entry on the right side, and right-sided surgical emphysema.

A trauma CT scan revealed bilateral scapular fractures (Figure 1), bilateral lung contusions, multiple rib fractures, and right-side pneumothorax with surgical emphysema of the chest wall. Extra thoracic injuries included multiple vertebral transverse processes fractures, left acetabulum fracture, and right iliac bone fracture.

The patient was intubated and ventilated due to low GCS. A right-sided chest tube was inserted. Bilateral sub-scapular fractures and multiple rib fractures were treated conservatively. The patient did well, and he was discharged in good condition.

Case 2: A 29-year-old male presented to the Emergency Department after sustaining significant trauma when struck by a large quantity of marble plates at work. He was complaining of pain in the head, chest, and back. On examination, his Glasgow Coma Score was 15/15, a pulse rate of 80 bpm, blood pressure 155/91 mmHg, respiratory rate at 25 breaths per minute, and oxygen saturation at 100% on room air. Additionally, findings included facial laceration, mandibular fracture, multiple bruising, and contusions on the chest and neck, along with diminished air entry on the right side. The CT scan of the head and maxillofacial region revealed bilateral comminuted displaced bone fractures noted involving mandibles with surrounding soft tissue laceration and emphysema. A trauma CT scan showed bilateral small pneumothorax, bilateral scapular fracture, and multiple rib fractures.

The patient was admitted under general surgery for observation and further management. On the second day, he underwent open reduction and internal fixation (ORIF) for the bilateral mandibular fracture, while conservative treatment was prescribed for the scapular fracture. The patient was discharged with analgesics, bed rest, and arm sling.

Discussion

Bilateral scapular fractures typically stem from electrical shocks or convulsive seizures, often due to forceful muscle contractions, with Instances arising from trauma being notably rare.¹

CT scans are crucial for diagnosing bilateral scapular fractures. This diagnostic tool identifies the extent and severity of fractures, thereby aiding in the decision-making process regarding their management.²

Conservative management is adapted for all extra-articular scapular fractures with analgesics, immobilization followed by early rehabilitation. Internal fixation is reserved for addressing specific fractures, including those involving the glenoid fossa or scapular neck.¹

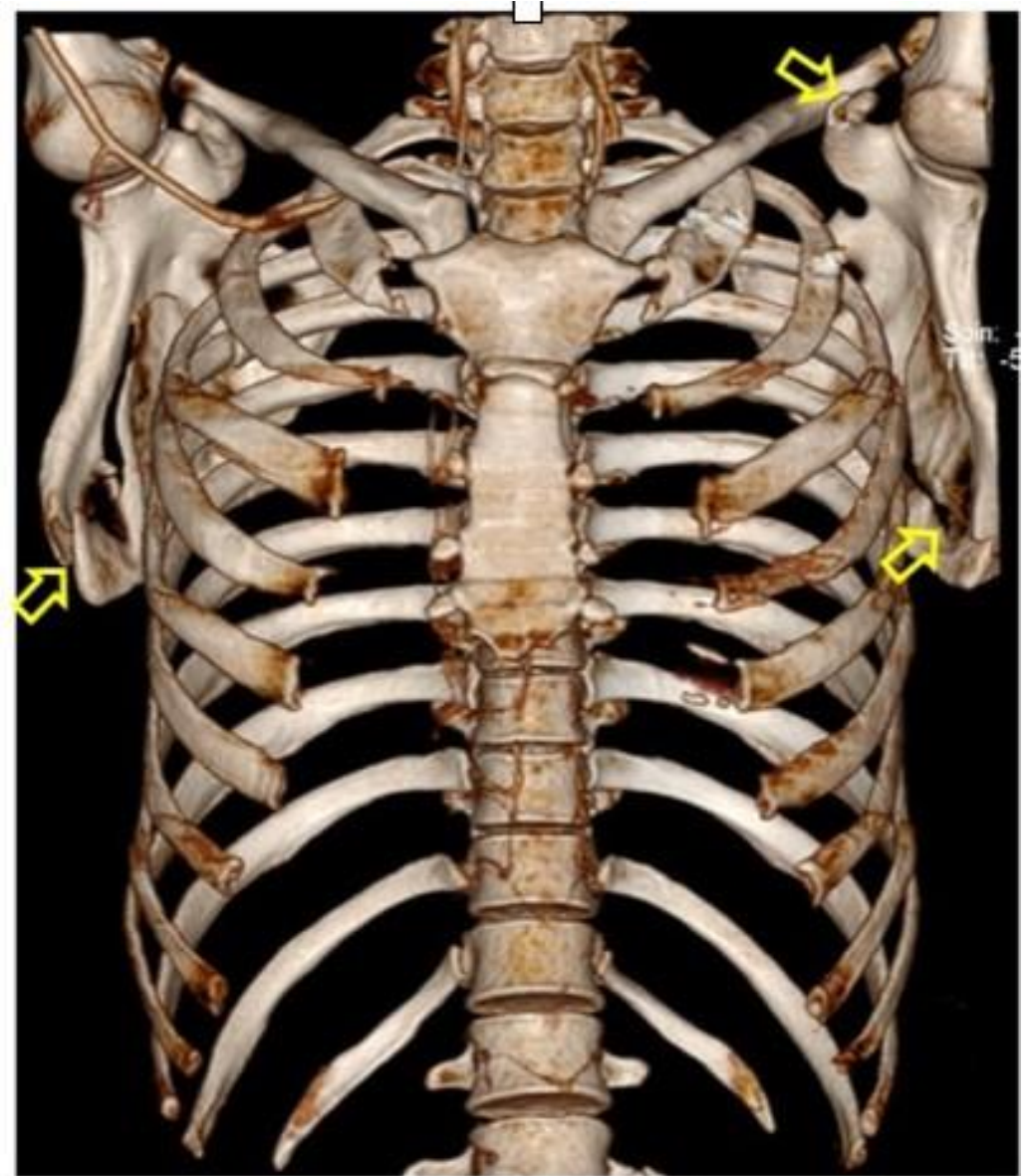


Figure 1: CT scan showed bilateral scapular fracture (Arrows)

Conclusion

Bilateral scapular fracture in blunt chest trauma is rare, with only a few cases reported in the literature. They generally do not necessitate surgery. Bilateral shoulder joint immobilization is the treatment of choice for non-surgical cases.

References

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