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Case report

Comminuted Scapular Body Fracture after Seizure

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Abstract

The current case study deals with Comminuted Scapular Body Fracture after Seizure. Diagnosis of the epilepsy defined as two or more unprovoked seizures. The prevalence of epilepsy is found to be .5 – 2%. People with epilepsy are at risk of fractures either due to fall, muscle contractions that lead for avulsion fractures or loss of protective mechanism during seizures. Muscles contraction during tonic phase of seizures can result in variety of musculoskeletal injuries that include shoulder dislocation or fractures, spine vertebral bodies fractures and acetabular fractures.

Keywords: ***Seizure, Body Fracture, Comminuted Scapular, epilepsy, muscle contractions***

Introduction

Diagnosis of the epilepsy defined as two or more unprovoked seizures. The prevalence of epilepsy is found to be .5 - 2% [1]. People with epilepsy are at risk of fractures either due to fall, muscle contractions that lead for avulsion fractures or loss of protective mechanism during seizures [2,3]. Some antiepileptic drugs decrease bone density and eventually increase the risk of fractures among people with epilepsy [4]. Epileptic patients have twice risk of fractures compared to controls [5]. The risk factors for epilepsy related fractures include first two years of diagnosis, male and 45 years old or older [4,6]. Seizures also can result in posterior shoulder dislocation, reverse hill Sachs lesion and proximal humerus fractures from the muscle contractions [7,8]. Anterior shoulder dislocation can also occur after seizures [9].

Case presentation

29 years old male patient present to emergency department with left shoulder pain after seizure upon examination patient was conscious, alert and oriented to time place and person, there was no history of trauma or fall down, left upper limb movement was restricted secondary to the pain, left scapular region was tender upon palpation, there was no bruising or discoloration, neurological examination was normal, vascular examination was normal. The patient was diagnosed with epilepsy but he is not compliant with his medications. X-rays of the left shoulder shows fracture of the scapular body (**Figure 1**). Computerized tomography shows comminuted scapular fracture (**Figure 2**). 3D CT shows also the comminution of the fracture (**Figure 3**). The patient was given arm sling and outpatient follow up. The rehabilitation program started for left shoulder range of motion exercises.

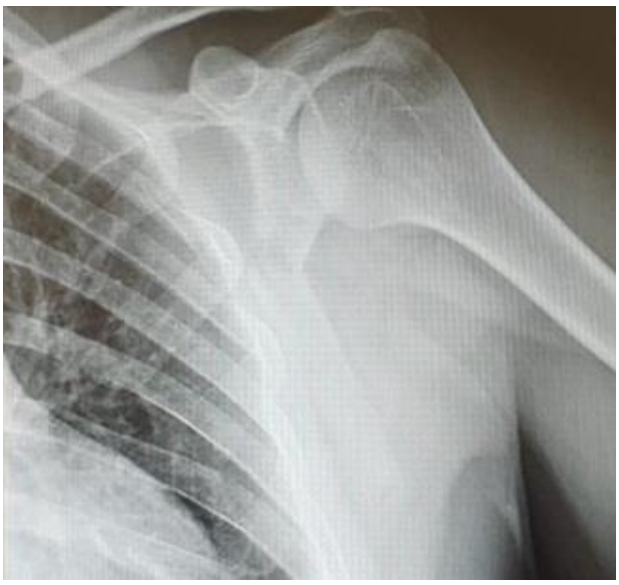

Figure 1

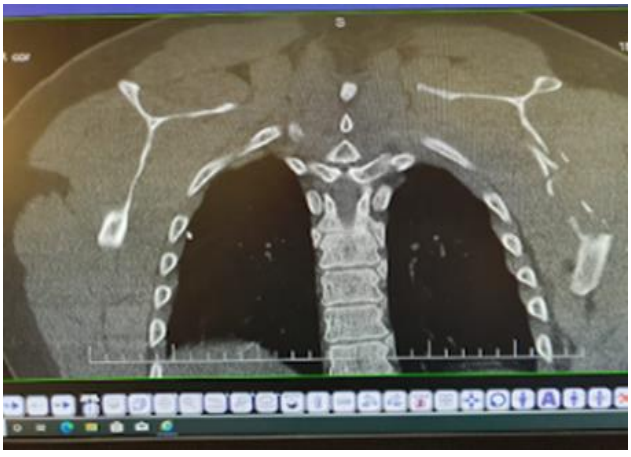

Figure 2

Figure 3

Discussion

Muscles contraction during tonic phase of seizures can result in variety of musculoskeletal injuries that include shoulder dislocation or fractures, spine vertebral bodies fractures and acetabular fractures [10]. Scapular fractures unilateral or bilateral are usually result from high energy trauma. these scapular fractures rarely reported to be result of seizures or electrical shock. M. Tucek et al found that in their review of 17 patients with bilateral scapular fractures 11 patients due to high energy trauma, 4 patients after electrical shock and 2 patients after seizures [11]. Scapular fractures after seizures usually delayed to be diagnosed compared to scapular fractures after trauma [12]. Scapular body fractures usually treated non operatively with immobilization until the pain relieved followed by active rehabilitation [13]. The 3D CT is considered more accurate than plain radiograph in the description of the scapular fractures [14].

Declarations

Conflicts of Interest

None

Funding Statement

None

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