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Case Report

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Neglected Traumatic Locked Anterior Shoulder Fracture-Dislocation

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ABSTRACT

Anterior shoulder dislocations are the most common major joint dislocations encountered in the emergency departments and fractures of proximal humerus can accompany with dislocations. Although the treatment of acute isolated traumatic anterior shoulder dislocation is generally simple, the treatment of neglected fracture-dislocations becomes more complicated. In this report, a 22-year-old male patient who had posttraumatic locked, shoulder fracture-dislocation is presented. Open reduction and internal fixation was performed because the injury had occurred 3 weeks ago and the humeral head was locked on the anterior rim of glenoid. At sixth month post-operative follow-up, it was seen that the fracture had united and there was no radiological evidence of avascular necrosis. Neglected, locked anterior fracture-dislocations should be managed thoughtfully by open reduction and internal fixation with consideration of the risk for avascular necrosis.

Key words: *Neglected, traumatic, locked, shoulder fracture, dislocation*

İhmal Edilmiş Kilitli Travmatik Anterior Omuz Kırıklı Çıkığı

ÖZET

Anterior omuz çıkıkları, acil serviste en sık karşılaşılan ve beraberinde proksimal humerus kırıklarının da eşlik edebildiği eklem çıkıklarıdır. İzole çıkıklar, akut dönemde kapalı yöntemlerle kolayca tedavi edilebilmelerine rağmen, gecikmiş olgularda, beraberinde kırık eşlik ediyorsa tedavi daha zor hale gelmektedir. Bu yazıda, travma sonrası omzunda kilitli, kırıklı-çıkık oluşan 22 yaşındaki hasta sunuldu. Yaralanmanın üzerinde 3 hafta geçmiş olması ve humerus başının glenoidin anterior dudağında kilitlenmiş olmasından dolayı hastaya açık redüksiyon ve plak vida ile internal tespit uygulandı. Altı ay sonra yapılan kontrolünde kırığın kaynadığı ve avasküler nekrozun gelişmediği görüldü. İhmal edilmiş kilitli omuz kırıklı çıkıkları avasküler nekroz riski göz önünde bulundurularak açık redüksiyon ve internal tespit ile tedavi edilmelidir.

Anahtar kelimeler: *İhmal edilmiş, travmatik, kilitli, omuz kırıklı çıkık*

INTRODUCTION

Neglected anterior dislocations are less frequent than neglected posterior dislocations, because anterior shoulder dislocations are more familiar to the orthopaedic surgeon, and their radiological diagnosis is easy (1). It may also be complicated by neurological deficits, injuries to the rotator cuff, and fractures of proximal humerus (2). Although reduction of acute isolated traumatic anterior shoulder dislocation is generally simple, the treatment of neglected fracture-dislocations is not so easy especially if the fracture pattern causes locking of the humeral head on the anterior glenoid rim. So fracture pattern of proximal humerus and the time that passed since the trauma to the reduction becomes more crucial for fracture-dislocations of glenohumeral joint (GHJ). To us, this is the first case of neglected locked

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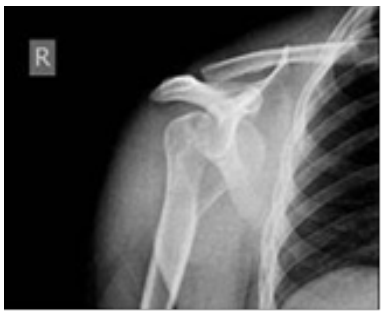

***Figure 1**. AP view of the shoulder reveals locked fracture dislocation of the glenohumeral joint.*

anterior fracture-dislocation of GHJ that is traumatic without seizures or electrocution and treated with open reduction and internal fixation.

CASE

A 22-year-old right-hand dominant male patient admitted our clinic complaining of persisting pain and stiffness in his right shoulder. The symptoms began 3 weeks earlier after a fall on his right outstretched hand from a height of approximately 2 meters. It was firstly manipulated by a bonesetter. In the following period, there were no relief in limited shoulder motions and pain. When the patient was initially evaluated in our outpatients clinic, his shoulder was completely locked in. There was squaring of the shoulder and anterior bulging of the humeral head with an obvious sulcus just inferior to the acromion. There were no neurovascular complications. Plain radiographs were obtained to recognize

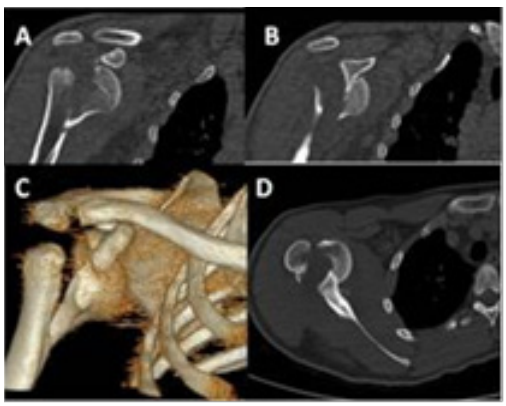

***Figure 2**. Computed tomography sections reveal the fracture dislocation (split and locking of the humeral head)*

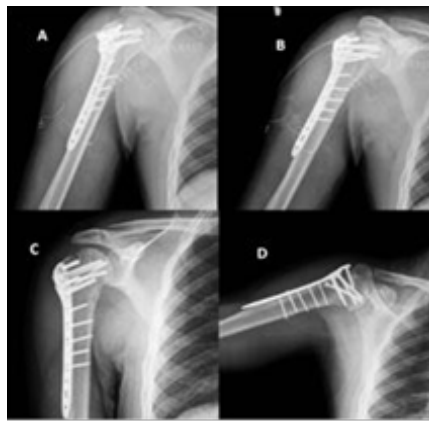

***Figure 3**. Immediate (A, B) and late (C, D) postoperative radiographs*

associated fractures or articular surface defects. Figure 1 reveals the locked anterior dislocation of the glenohumeral joint and split of the humeral head. A CT-scan allowed quantification of the skeletal lesions and planning for the treatment (Figure 2).

No closed means of treatment choices were likely to be successful, so surgery was planned. The patient was placed in a standard beach chair position for surgery. Open reduction and internal fixation (ORIF) using anatomic proximal humerus locking plate was performed via deltopectoral approach (figure 3 A, B). Physiotherapy was started on the first postoperative day including passive shoulder mobilization exercises and subsequently additional progressive active range of motion and strengthening exercises. The patient was discharged on postoperative fifth day. The patient was evaluated in sixth week and third month after the operation in regard to radiographic control and physical therapy. At sixth month post-operative follow-up, the fracture had united and there was no radiological evidence of avascular necrosis (figure 3 C, D). His active range of motion was as follows: forward flexion; 130 degrees, abduction; 100 degrees, external rotation; 20 degrees, internal rotation, to level of L2 vertebra.

DISCUSSION

Anterior glenohumeral (GH) dislocations are less likely to be neglected than the posterior ones. As the orthopedic surgeons are more familiar to anterior GH fracture-dislocations, those cases could be left untreated only

if the patient does not apply to hospital and prefer to apply to a bonesetter, as seen in our case. In the literature, neglected locked anterior fracture-dislocations of GH joint have seldom been reported. Most of them are bilateral and have a history of trauma as a result of convulsive seizures or electrocution (5). The only case with traumatic, neglected fracture-dislocation of GH joint without any seizures is a 65-year old female treated with hemiarthroplasty (6).

The present report is the first account of neglected, traumatic without seizure or electrocution, and locked anterior fracture-dislocations treated with ORIF. In conclusion, neglected, locked anterior fracture-dislocations should be managed thoughtfully by open reduction and internal fixation with consideration of the risk for avascular necrosis.

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