

Acromion Fracture in Children (About a Case)

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Abstract

Case Report

The shoulder trauma in children frequently results in injuries to the clavicle, while acromion fractures remain a rare occurrence. We report a case of an acromion fracture in an 11-year-old child following a road traffic accident (motorcycle passenger struck by a car). The anteroposterior shoulder X-ray revealed an oblique fracture of the distal end of the posterolateral portion of the acromion. Treatment involved immobilization with an arm-to-body sling, and the follow-up was uncomplicated. We emphasize the importance of detecting this rare fracture in the context of any shoulder trauma.

Keywords: Acromion, fracture, child, clavicle.

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INTRODUCTION

The acromion fractures in children are rare and may be associated with acromioclavicular dislocation. The diagnosis is based on clinical examination and standard X-rays; sometimes it can be difficult and may require CT scans. Treatment depends on the degree of displacement. Acromion fractures are usually benign but carry a risk of complications, such as shoulder stiffness, which can affect functional prognosis. The aim of our work was to report a rare case of acromion fracture.

OBSERVATION

This is an 11-year-old male child who was the victim of a road traffic accident (motorcycle passenger struck by a car), sustaining multiple impact points on the cranial, thoracic, and left shoulder regions. He presented to the emergency department with complete functional impairment of the left upper limb.

Upon clinical examination at admission, the patient was conscious, with no initial loss of consciousness, and exhibited swelling around the acromioclavicular joint, along with pain exacerbated by deep inspiration. Active and passive mobility of the joint was impossible.

The standard anteroposterior X-ray of the shoulder (Figure 1) revealed an oblique fracture of the distal end of the posterolateral portion of the acromion, classified as stage I according to Kuhn *et al.*, [2],

associated with a type I clavicular subluxation according to Rockwood classification [1].

A computed tomography (CT) scan of the left shoulder (Figure 2) confirmed the same lesions observed on the standard X-ray.

The patient was treated with immobilization using an arm-to-body sling for four (04) weeks, with a good outcome.

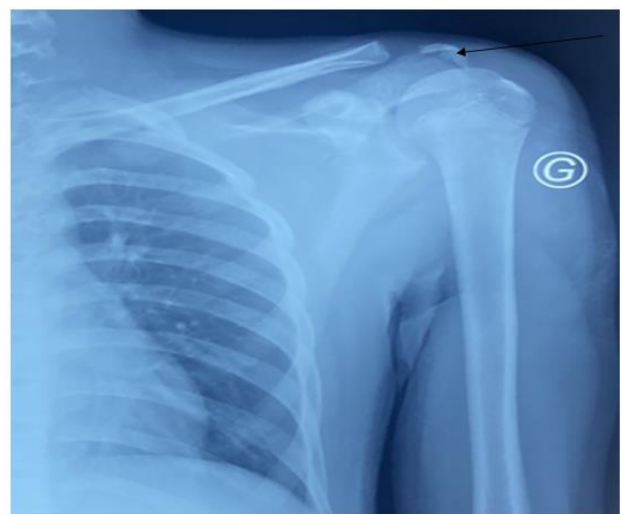


Figure 1: Anteroposterior X-ray of the left shoulder showing the acromion fracture with clavicular subluxation

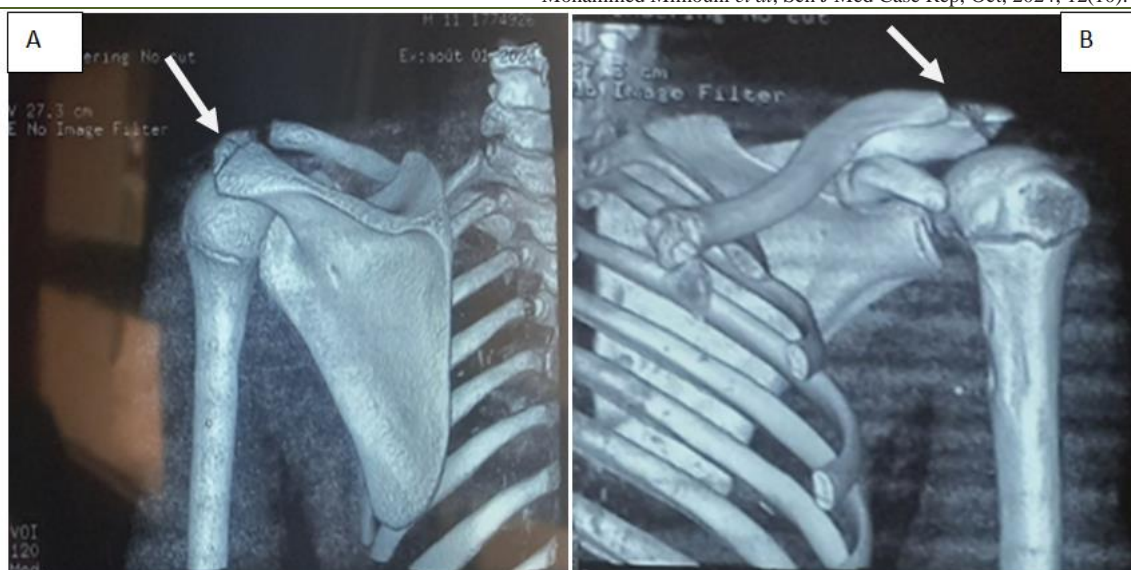


Figure 2: CT scan of the shoulder: A: posterior view / B: anterior view, showing the acromial fracture associated with clavicular subluxation

DISCUSSION

The acromion fractures are rare in children. In most cases, the mechanism is direct, resulting from sports injuries or road traffic accidents [3, 4], as was the case with our patient.

Patients often present as polytrauma cases, experiencing functional impairment and pain during shoulder movement or deep inspiration. It is relatively easy to identify tenderness and swelling around the scapula, as seen in our patient [6].

The diagnosis requires anteroposterior X-rays and, if necessary, a CT scan or MRI to assess the fracture line and displacement [5].

The majority of non-displaced type I and II acromial fractures heal with conservative treatment [2, 7, 8]. This was the case with our patient.

Due to the high risk of shoulder stiffness, early mobilization and regular follow-up are essential. For type III fractures, gentle reduction and fixation are necessary [1, 3].

CONCLUSION

Acromion fractures are rare in children. Diagnosis should be suspected in cases of isolated shoulder trauma or in the context of polytrauma with functional impairment of the upper limb. Therapeutic management depends on the type of fracture displacement.

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