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Case Report

Posterior Shoulder Dislocation in Elderly Patient

Soumaro Kanaté Daouda[1,3]*, Aka Kouamé Evrard Vianney Medgar[1], Mobiot Aka Christelle Désirée-Thérèse[2], Gnamkey Koko Wilson Marius[3], Kouadio Samah David[1], Coulibaly Nahoua Alassane[1], Sy Abdel Kader[1,3], Sie Essoh Jean-Baptiste[1]

[1]*Trauma, Orthopedics and Reconstructive Surgery Department of the Yopougon University Hospital Center, Côte d'Ivoire*

[2]*Orthopedics, Traumatology and Plastic Surgery Department of the Angré University Hospital Center, Côte d'Ivoire*

[3]*Department of Surgery, Adjamé General Hospital*

***Corresponding Author:** Soumaro Kanaté Daouda, Trauma, Orthopedics and Reconstructive Surgery Department of the Yopougon University Hospital Center, Côte d'Ivoire.

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Abstract

Posterior dislocations are rare. They represent less than 3% of all shoulder dislocations. The diagnosis is usually unrecognized in 50 to 80% of cases, with major consequences for the functional prognosis of the shoulder. They are often accompanied by associated periarticular lesions.

We report a case of acute posterior glenohumeral dislocation.

This 88-year-old patient was admitted to emergency with trauma to the right shoulder following a fall. The patient underwent an emergency closed reduction followed by two weeks of restraint and rehabilitation. After 18 months, the patient was satisfied with the function of her right shoulder.

We discuss the rarity, age of onset and aetiology.

Posterior dislocation is rare. Its occurrence in the elderly is exceptional. Treatment was orthopaedic.

Functional results were very satisfactory.

Keywords: Elderly; Orthopaedic Treatment; Posterior Dislocation; Shoulder

Introduction

Glenohumeral dislocations are the most common type of dislocation seen in emergency departments [1]. Anterior dislocations account for 95% [1]. Posterior dislocations are rare [2,3]. They account for less than 3% of all shoulder dislocations [2,3]. The first case was described by Sir Ashley Cooper in 1839 [4]. They occur in young people [5,6]. The main causes are convulsive seizures, trauma and electrocution [5]. The diagnosis is usually unrecognised in 50 to 80% of cases [5,6], with major consequences for the functional prognosis of the shoulder. Posterior dislocation of the shoulder is often accompanied by lesions of the bone or soft tissues around the joint [5].

We report a case of posterior glenohumeral dislocation in an elderly patient following a fall. We discuss the rarity, age of onset and aetiology.

Observation

An 88-year-old patient, right-handed with no known pathological history, was seen in emergency for absolute functional impotence and pain in the right shoulder following a domestic accident. she had fallen and landed on the palm of her hand, with the shoulder in flexion an internal rotation. The patient presented on the same day in the attitude of upper limb trauma patients.

On clinical examination, there was no change in the shape of the shoulder. The upper limb was in adduction and internal rotation, with prominence of the coracoid process and filling of the posterior subacromial void (Figure 1). There was also limited external rotation and flexion of the shoulder and limited supination of the forearm. There were no complications vascular or nerve.

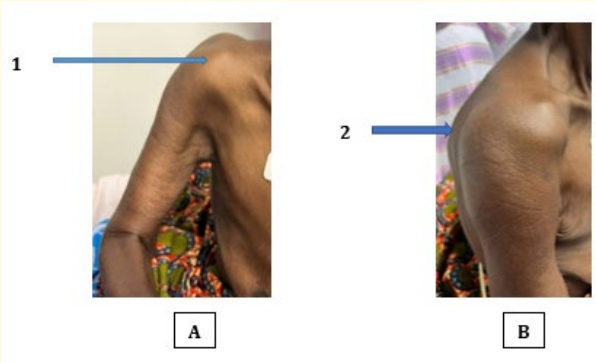

Figure 1: Clinical aspect of posterior dislocation of shoulders.

A: Front view, B: Side view

1: Prominence of coracoid process

2: Posterior subacromial void filling.

A standard front and side Lamy X-ray of the right shoulder was ordered in the emergency department. It showed a loss of congruence with disappearance of the joint space between the head of the humerus and the anterior edge of the glenoid, with a bulb sign present, indicating maximum forced internal rotation. There were no apparent fracture lesions (Figure 2).

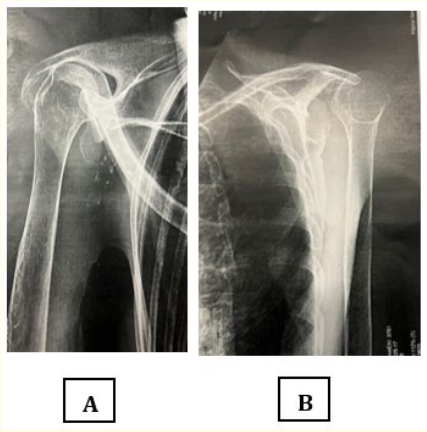

Figure 2: X-rays of posterior shoulder dislocation.

A: Front view; B: Side view

The dislocation was reduced under general anaesthetic using an external manœuvrer. The shoulder was stable after reduction. A follow-up-X-ray confirmed reduction of the posterior dislocation without any other associated lesions (Figure 3). A CT scan and MRI to look for associated lesions could not be performed. The limb was restrained for 2 weeks in a waistcoat, elbow to body. Rehabilitation was started after the 2 weeks of restraint. At 3 months, the patient had resumed her pre-trauma activities. At the last follow-up at 18 months, the examination revealed a stable shoulder. The patient was satisfied with the function of her right shoulder.

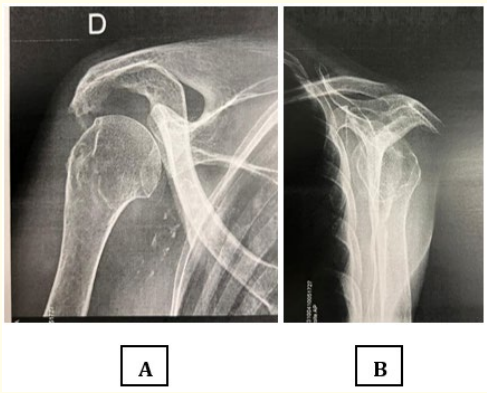

Figure 3: X-rays after reduction of posterior shoulder dislocation.

A: Front view; B: Side view

Discussion

We report a case of acute posterior glenohumeral dislocation in an elderly patient following trauma and orthopaedic treatment.

Posterior dislocation is uncommon [2,3]. Its incidence is low [2,3,6]. It varies around 2% of shoulder dislocations [6]. The diagnosis of posterior shoulder dislocations is usually made late, or is not recognised at all. This failure to recognise can be as high as 80% [2,3]. The average delay between the occurrence of a posterior dislocation and its diagnosis is one year [5]. This could be explained by the rarity of this lesion [5], but also by a lack of awareness of the clinical feature, which are not very noisy, and of an inadequate radiological work-up or one that is difficult to interpret [7].

Seizures are the most frequently cited aetiology of posterior shoulder dislocation [5]. Falls account for 15% of aetiologies [5].

The typical mechanism of post-traumatic dislocation is an axial force exerted on the arm internal rotation and flexion [7,8]. This is the mechanism described in our clinical case.

Dislocation of the shoulder in the elderly is an exceptional injury. Given her advanced age and osteoporosis, the injury she should have presented with is a fracture of the upper end of the humerus. In our literature search, we did not find any cases of posterior shoulder dislocation in the elderly. The literature describes it as a lesion of the young [5,6].

We undertook orthopaedic treatment. this choice of treatment is in line with the recommendations in the literature [2,8,9]. These recommend reduction by external manoeuvrer under general anaesthetic for patients with no bony lesions or with a hill-Sachs lesions with a bony fragment whose volume is less than 40% of the humeral head.

Posterior shoulder dislocations are frequently associated with bone and/or soft tissue [2,5,6,10]. This frequency of associated lesions can reach up to 86% of cases [2,5,10]. The absence of CT and MRI scans did not allow us to formally exclude associated lesions in our patient.

Conclusion

Posterior dislocation is a rare condition. Its occurrence in elderly patients is exceptional. Treatment was orthopaedic. Functional results were very satisfactory.

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