Trauma Case Reports 1 (2015) 73–78

Contents lists available at ScienceDirect

Trauma Case Reports

journal homepage: http://www.journals.elsevier.com/trauma-case-reports/

Case Report

Undetected anteromedial coronoid fracture in elbow dislocation: A case report☆,☆☆

R. Barco *, D. Duran, S.A. Antuña

Shoulder and Elbow Unit, Orthopedic Surgery and Traumatology Department, La Paz Hospital, IDIPAZ, Madrid, Spain

ARTICLE INFO

Article history:
Accepted 19 October 2015
Available online 14 November 2015

Keywords:
Anteromedial coronoid fracture
Coronoid fracture
Elbow dislocation
Posterolateral elbow instability
Lateral collateral ligament injury
Fixation

Introduction

Posteromedial elbow instability has been described as an injury to the lateral ulnar collateral ligament (LUCL) and an anteromedial coronoid fracture, typically with absence of a radial head injury and mild incongruity of the elbow that can lead to a rapid onset of degenerative joint changes [1]. On the other hand, an acute posterolateral elbow instability pattern includes injury to the LUCL, anterior capsule and, less often, to the medial collateral ligament (MCL). [2] In a complex pattern, a fracture of the radial head and a fracture of the coronoid can be associated with increasing instability of the elbow [3]. Appropriate treatment protocols include repair of all the injured structures to restore elbow stability.

When assessing an elbow injury, we naturally interpret the available data to try to understand the mechanism of injury and it follows to assess the integrity of the typically associated injuries. However, the observation of a posterolateral elbow dislocation with absence of injury to the radial head may be interpreted as

☆ None of the authors or any member of their family have received any financial remuneration related to the subject of the article.
☆☆ IRB approval was not required.
* Corresponding author at: Paseo de la Castellana, 261, Madrid 28046, Spain. Tel.: +34 616951193.
E-mail address: raulbarco@hotmail.com (R. Barco)

http://dx.doi.org/10.1016/j.tcr.2015.10.003
2352-6440/© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

a simple elbow dislocation. The finding of a coronoid tip fracture may indicate a complex pattern of instability. The failure to adequately recognise the severity of coronoid fractures may lead to inadequate treatment.

We present a case that presented in the emergency room (ER) with a radiographic posterolateral elbow dislocation and absence of radial head injury with an unrecognised fracture of the anteromedial coronoid, typically associated with a posteromedial pattern of instability treated like a posterolateral simple elbow dislocation and a similar case with adequate recognition of the pattern and severity of the coronoid fracture.

Materials and methods

Case 1. A 60-year-old bricklayer presented in the ER with a radiographic posterolateral dislocation after a fall on the outstretched hand from his own height. After an initial x-ray exam, his elbow was reduced and placed in a splint at 90° of flexion after testing for stability in flexion and extension (Fig. 1.). He was immobilised for 2 weeks after which the cast was removed and the patient was started on active elbow motion exercises with avoidance of varus stress. At 6 weeks, the patient was visited and x-rays of the elbow were taken observing mild joint narrowing of the medial side of the elbow joint. The patient was referred to our clinic with a CT scan in which we observed an anteromedial fracture of the coronoid that was subtle on the initial radiographs (Fig. 2).

At 2-month follow-up, the patient showed the decrease of the ulnohumeral joint with full range of motion and slight pain when loading the elbow (Fig. 3) that made him change his occupation to a less demanding job. The patient declined any surgical treatment and at 2 years shows medial-sided arthritis of the elbow with good elbow motion (20°–130°) and a stable joint.

Case 2. A 30-year-old man presented in the ER referring a fall on his outstretched hand and exhibiting pain and clinical signs of elbow dislocation. On his x-ray examination, a posterolateral elbow dislocation with a readily recognisable fracture of the anteromedial coronoid is apparent (Fig. 4). The patient underwent elective surgery to stabilise the coronoid fracture with plate osteosynthesis through a medial approach between both heads of the flexor carpi ulnaris and repair of the LUCL with transosseus sutures and subcutaneous anterior transposition of the nerve (Fig. 5). The patient was placed in a splint for a week after which he began active

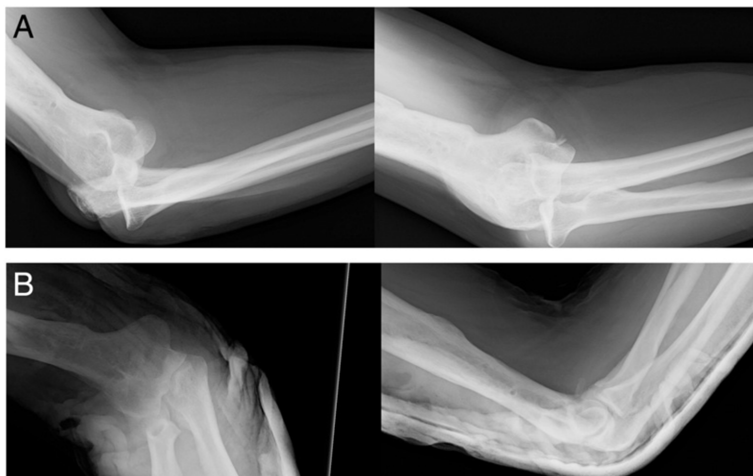

Fig. 1. (A–B) Initial radiographic examination shows a posterolateral elbow dislocation and a fracture of the tip of the coronoid, typically associated with a posterolateral elbow pattern of instability (A). After reduction and splinting, the elbow is congruent with slight posterior sag of the radial head and a coronoid fragment is observed in front of the humerus. No injury to the anteromedial coronoid is apparent in these exams (B).

Download English Version:

https://daneshyari.com/en/article/4100523

Download Persian Version:

https://daneshyari.com/article/4100523

Daneshyari.com