



Occult Monteggia fracture in an adult : A case report

Anish P. KADAKIA, Jaime CANDAL-COUTO

From Wansbeck General Hospital, Ashington, United Kingdom

Injuries with the Monteggia fracture-dislocation pattern necessitate operative fixation of the ulna fracture in an adult. It is important to identify this by taking radiographs of the elbow and wrist joints in all cases of ulna fracture. We present a case of an occult Monteggia fracture-dislocation in an adult, which was not apparent on the initial radiographs. A thorough clinical examination along with an examination under anaesthesia in view of the high index of suspicion helped us to achieve the diagnosis.

Keywords : occult ; Monteggia fracture-dislocation.

INTRODUCTION

Monteggia first described in 1814 a particular fracture of the ulna associated with dislocation of the radial head (5). It is important to recognise this pattern of injury as against an isolated ulna fracture, as the presence of a radial head dislocation is an indication for operative fixation of the ulna fracture. We present a case of a 58-year-old male patient who presented to our department with an occult Monteggia fracture-dislocation and we describe the steps taken to achieve the diagnosis.

CASE REPORT

A 58-year-old fisherman was referred to our trauma department four days following a blunt injury to his right proximal forearm. He was struck by a heavy-duty chain along the subcutaneous

border of his proximal ulna and across the posterolateral aspect of his right forearm. He attended the local accident and emergency department. A diagnosis was made of an isolated proximal ulna fracture with no displacement and minimal angulation. This was therefore treated with a simple broad arm sling and early mobilisation was encouraged. A fracture clinic appointment was arranged for four days afterwards in his local hospital, in a different part of the country. When he was reviewed in the fracture clinic he had a marked apprehension and no movement in his arm was possible. He complained of marked pain and on clinical examination he had moderate swelling throughout his forearm and elbow. His previous radiographs were reviewed and further films were obtained. This confirmed a proximal ulna fracture with minimal displacement but some increased angulation. Radiographs of the

■ Anish P. Kadakia, MB BS, MRCS, MS (Ortho), DNB (Ortho), Senior Senior House Officer (Trauma and Orthopaedics).

■ Jaime Candal-Couto, MB BS, FRCS (Orth), Consultant (Trauma and Orthopaedics).

Wansbeck General Hospital, Woodhorn Lane. Ashington, Northumberland, NE63 9JJ, United Kingdom.

Correspondence : Anish Kadakia, 37 Barley Close, Glenfield, Leicester, LE3 8SB, United Kingdom.
E-mail : akadakia@rediffmail.com.

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Fig. 1. — Radiograph showing an isolated proximal ulna fracture with a minor degree of angulation.

elbow did not reveal any evidence of dislocation or subluxation of the radial head in different views (fig 1).

In view of the marked apprehension and lack of movement in his forearm, he was taken to the operating theatre and his elbow and forearm were examined under anaesthesia (EUA). This confirmed a very markedly unstable fracture configuration. The radiocapitellar as well as the proximal radioulnar joint were very unstable. The radial head dislocated very easily with minimal increase of the tilt of the ulna fracture (fig 2).

The radial head was therefore reduced and the ulna was plated along its posterior border with a dynamic compression plate (fig 3).

Following the operation his symptoms settled quickly and within two weeks he regained a virtually full range of movement in his forearm and elbow, pain settled and his function increased steadily.



Fig. 2. — Intraoperative screening of the right elbow showing radial head dislocation.



Fig. 3. — Postoperative radiograph showing a fixed proximal ulna with reduced radial head.

DISCUSSION

This case highlights the need for a high index of suspicion in isolated proximal ulna fractures. The high-energy injury with increasing pain and apprehension of elbow and forearm movements arose our suspicion about the possibility of an occult Monteggia fracture.

It is standard teaching to have radiographs of the joint above and below a long bone fracture. The initial radiographs showed an isolated slightly angulated proximal ulna fracture but there was however no evidence of a radial head subluxation or dislocation. The possibility of an unstable fracture configuration prompted us to perform an examination under anaesthesia and proceed with internal fixation.

There are numerous reports in the literature about missed Monteggia fracture-dislocations, in adults but more so in children (1-4, 6). The missed lesions in adults are due to failure to obtain radiographs of the elbow joint. The missed lesions in children are often because of the variant form with plastic deformation of the ulna associated with the radial head subluxation/dislocation. This is, to the best of our knowledge, the first case report of an adult with an occult Monteggia lesion with a proximal ulna fracture and normal radiocapitellar joint on radiographs. Examination under anaesthesia in

this case clearly demonstrated a Monteggia lesion and thus dictated the further management plan with open reduction and internal fixation.

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