Unusual Monteggia type 1 variant in adult: a rare finding in a rare fracture

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DESCRIPTION

A 56-year-old female patient presented to the orthopaedic outpatient department with alleged history of slip from stairs about 10–12 in number and fall on the outstretched hand about 3 weeks ago. Following the injury, she developed severe pain, swelling abnormal mobility of lower arm and restriction of movement of the right elbow. She also admitted that post trauma, she had received treatment from traditional bone setters which had reduced her pain. On examination of her limb, there was a flexion deformity of right elbow along with extra articular varus deformity of lower arm which was mobile with tenderness and bony crepitus at both at arm and the elbow. There was no distal neurovascular deficit.

Radiographs of the right arm and forearm with shoulder, elbow and wrist joints revealed fractures of the lower shaft humerus and proximal ulna (metaphyseal with intra-articular fragment and coronal split from metaphysis-diaphysis junction extending up to half of shaft of ulna). There was associated radial head dislocation anteriorly (figure 1).

Under general anaesthesia, using the dorsal approach, open reduction and internal fixation of the humerus followed by the ulna was done using contoured locking contoured plate (LCP) and cerclage wiring. The radial head was irreducible and hence excised through the Boyd's approach. Postoperatively, the forearm was immobilised in an above-elbow slab (figure 2). There was no radial nerve or postinterosseous nerve palsy postoperatively. At 3 weeks, physiotherapy with range of movement was started, and the patient gained 90° elbow flexion and a near full pronation–supination movement at 6 months follow-up.

Monteggia fracture-dislocation is a rare injury in both adults and children.^{1 2} The diagnosis is often missed in the trauma and emergency department, necessitating a thorough clinical examination and

Figure 2 A postoperative plain X-ray of the same patient with internal fixation of the humerus and ulna along with radial head excision.

radiographic interpretation.¹ The injury has been described variously but Bado's classification remains the most acceptable. Along with its classical four types, there are several variants described, particularly with type 1 and more so in the children group as type 1 is more common in the children.³ Ours is a unique finding seen in adults that fits best as a variation of type 1. To add to our woe, the patient had a massage therapy by a traditional bone setter and hence presented late. The purpose is to highlight the imaging of the 'rare of a rare' fracture pattern rather than discussing the management part.

Learning points

- ▶ Our case is unique which has never been described previously in literature and hence it is a 'rare in the rare' finding.
- ▶ Type 1 and its variant is more common in children but this was seen in an adult.
- ▶ To add to the existing problems, she underwent a therapy by a traditional bone setter which we consider would require surgical treatment

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Figure 1 A plain X-ray of the arm with elbow and forearm showing fracture of distal shaft humerus and the 'atypical' Monteggia variant.

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