A rare case of Monteggia’s lesion in children

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Abstract: The authors present a rare case of a Monteggia lesion in a child. The fracture of the proximal ulnar metaphysis is associated with a dislocation of the radial head. The outcome is good after closed reduction and six weeks cast. Two years later, the function is normal.

Key words: Monteggia lesion – Elbow – Children.

Introduction

The forearm fractures in children are extremely frequent but the isolated ulnar fracture is extremely rare [2, 8]. The fracture of the proximal ulnar metaphysis, above the coronoid have the features of a “greenstick fracture” in a six years old [3]. The present case concerns a four years old child who presented a proximal metaphyseal fracture of the ulna within a Monteggia lesion [4, 6].

Case description

A four years and a half boy C.Ric., is admitted in June 1999 for a left elbow trauma after a fall. He is diagnosed with a proximal ulnar metaphyseal fracture with angulation in the frontal plane of about 45° and external dislocation of the radial head (Fig. 1a, b). Closed reduction and cast immobilization are realized the same day. The clinical and X-Ray follow-up are done at 2nd, 10th, and at 21st day postoperatively. At the 45th day clinical and radiological evolution are satisfactory, with fracture consolidation and a regular contour of the condyloradial line; there is still a 25° displacement in the frontal plane of the proximal ulna (Fig. 2a, b). The next follow-up is realized at 3 months and at this point the clinical recovery is complete. Follow-up X-Rays at 3 months shows still a 20° angulation in the proximal ulna (Fig. 3a, b). Full activity is authorized as tolerated and a routine radiological follow-up is scheduled after one year. The last consultation in May 2001 confirm the good result with normal function and without any injury to the growth plates (Fig. 4a, b).

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Fig. 1a-b
a (99/6/16) AP view of the left elbow. b (99/6/16) Lateral view of the left elbow
Discussion

Forearm trauma in children are frequent as they represent 28% of limb’s traumatology. In the majority of the cases there is a fracture of both bones or one bone fracture associated with a dislocation of the other [8]. The fracture of the proximal third of the forearm is less frequent, 7% in a 271 cases series by Blount [2] and the association with a condylo-radial lesion is still less frequent with only three cases in the Blount study. Isolated fracture of the proximal ulnar metaphysis is very rare [3]; Liquois [5] in a 69 cases series concerning isolated fracture of one bone of the forearm describes a ulnar involvement in 36 cases with no fracture of the proximal third.

The mechanism is indirect after a fall on the hand palm, with the forearm in abduction and flexion of the proximal third by an angle with an external sinus as described by Chigot and Tanguy [3, 10]. The ulnar fracture is often associated with capsular and ligamentary lesions of the elbow at the condylo-