

ISOLATED TRAUMATIC POSTERIOR DISLOCATION OF THE RADIAL HEAD : A REPORT ON TWO CASES

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Posterior dislocation of the radial head without a fracture of the ulna in an adult is extremely rare. Two cases are presented in which the diagnosis was not made until 5 and 6 weeks respectively after the injury. In one case an open reduction and reconstruction of the annular ligament yielded a bad result. After excision of the radial head in the second case a good range of motion of the elbow was regained.

Keywords : dislocation ; radial head.

Mots-clés : luxation ; tête radiale.

INTRODUCTION

Posterior dislocation of the radial head without a fracture of the ulna is extremely rare in an adult. Heidt and Stern (2) in 1982 were the first to describe the condition. To our knowledge only three additional cases were described (1, 3, 4). This report presents two more cases seen as a late referral.

CASE REPORTS

Case 1

A 35-year-old right-handed man presented at the fracture clinic 6 weeks after a traffic accident. The exact mechanism of the injury is unknown. On physical examination the right elbow was locked in 90° of flexion and the forearm in pronation. The radial head could be palpated in the posterior aspect of the elbow. No neurovascular problems were observed.

Radiographs showed posterior dislocation of the radial head with an associated small chip fracture of the anterior aspect of the radial head

(fig. 1). Views of the forearm demonstrated no fractures of the ulna or radius.

An open reduction was done and the annular ligament reconstructed. The radial head was stable in 90° of flexion and full supination. A plaster cast was applied. Indomethacin 3 × 25 mg



Fig. 1. — Oblique radiograph of the right elbow showing posterior dislocation of the radial head and a small chip fracture of the radial head (arrow).

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daily was given for 3 weeks. The cast was removed 4 weeks postoperatively. The radial head remained reduced but poor function was obtained.

Six months after the operation the patient had a range of motion of the elbow 70°-100°, 10° of pronation and 30° of supination. There were severe functional problems with pain over the radial head. No further operative procedures were performed although the patient was offered a radial head excision.

Case 2

A 31-year-old right-handed man complained of pain and limited range of motion of the right elbow 5 weeks after a traffic accident. The exact mechanism of trauma is unknown.

Clinically, the posterior aspect of the elbow was tender and swollen. Flexion of the elbow was limited to 100° with 70° of extension deficit. The forearm was held in full pronation.

Radiographs showed posterior dislocation of the radial head with an associated small chip fracture of the anterior aspect of the radial head. There was no fracture of the ulna.

An excision of the radial head was performed. Six months postoperatively the patient had regained a range of motion of the elbow 30°-120°, 20° of pronation, with full supination. There was no major functional impairment.

DISCUSSION

Isolated posterior dislocation of the radial head without a fracture of the ulna is an extremely rare injury in adults.

Heidt and Stern (2) in 1982 reported on an isolated posterior dislocation of a radial head not diagnosed until 6 weeks after the injury. The patient required radial head excision to maintain elbow function.

Ferreres *et al.* (1) in 1990, Jones and Smith (3) in 1984 and Ryu *et al.* (4) in 1983 described a patient with an isolated posterior radial head dislocation treated by immediate closed reduction.

After a short period of immobilization followed by an exercise program a good result was obtained.

This article reports on two additional cases not diagnosed until 5 and 6 weeks after the injury. Closed reduction failed in both cases. Delayed open reduction and reconstruction of the annular ligament in one case yielded a bad result. After a radial head excision in case 2 an acceptable functional result was obtained.

Radial head excision appears to be the treatment of choice in the treatment of late presentation of isolated posterior dislocation of the radial head in the adult.

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SAMENVATTING

J. F. NOYEZ. Geïsoleerde traumatische posterieure luxatie van de radiuskop: bespreking van twee gevallen.

Een geïsoleerde posterieure luxatie van de radiuskop zonder fractuur van de ulna bij een volwassen patient is zeer zeldzaam. Er worden twee gevallen besproken waar de diagnose pas gesteld werd respectievelijk vijf en zes weken na het initiële trauma.

Eén van de gevallen werd behandeld door middel van een open reductie en reconstructie van het annulaire ligament. Een slecht resultaat werd bekomen. In het tweede geval werd een pijnloze en functionele elleboogmotiliteit herwonnen na een radiuskopresectie.

RÉSUMÉ

J. F. NOYEZ. Luxation postérieure isolée traumatique de la tête radiale : a propos de deux cas.

Une luxation postérieure isolée traumatique de la tête radiale sans fracture associée du cubitus est rarement observée chez l'adulte. Deux cas sont commentés dont

le diagnostic ne fut établi que respectivement cinq et six semaines après le traumatisme initial.

Un cas fut traité par réduction à ciel ouvert et reconstruction du ligament annulaire. Le résultat fut médiocre. Dans le second cas une mobilité fonctionnelle et indolore du coude fut obtenue après résection de la tête radiale.