



## Elbow dislocation associated with fractures distal quarter of the radius and scaphoid

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### ABSTRACT

The high-energy trauma has become frequent cause of traffic accidents. We oftense multiple lesions, fractures, dislocations, soft tissue damage in the same patient on the same members or different members .We report the case of a rare combination of lesion streated in our department.

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### Keywords

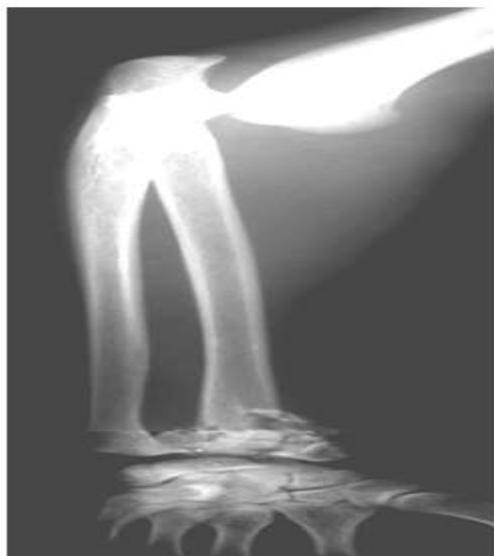
Elbow dislocation, Fracture, Radius, Scaphoid, Traffic accident.

### Introduction

Concomitant fracture dislocations of the upperlimb are rare. The mechanisms often due to high energytrauma .Although the treatment of theselesionsisolated simple, their association makes their management delicatetask .We report a case of elbow dislocation associatedwith a fracture of the distal radius and scaphoidfracture .

### Observation

Young 29 yearold amateur sports ( cycling ) history of a particulardiseaseVictim sports accident with an impact only point at the right upperlimbfollowing a crash on the descent of a hillwithfastReception hand elbow extension. On admission heshowed no vital emergency. A Clinicalexamination: deformationelbow + right wrist , no skin opening. Peripheral pulses wererepresent. Radiography of the right upperlimb (Fig. 1 ) showed :



**Figure 1:Preoperativeradiograph**

- \* An elbowdislocation .
  - \* A comminuted fracture of the lowerquarter of the radius
  - \* A scaphoidfracture .
- Under generalanesthesia :

- \* Reduction of dislocation first,
  - \* Reducedwristunderfluoroscopic control
  - \* Bipolar Distraction by an externalfixator .
- Postoperative Radiation Control wassatisfactory. (Fig.2- a, 2 - b)



**Fig 2a**



**Fig 2b**

### Figures 2-a 2-b: post operativeradiograph

Contention by a plastersplintelbowbent at right angles, and forearm in neutral position wasmaintained for 4 weeks.

Postoperative course was uneventful. rehabilitation of the elbow was to begin after the 4th week by the 6th week.: The external fixator removed and replaced with a sleeve -type scaphoid plaster for 8 Other weeks. The removal of the plaster cuff was carried out after 3 months .

Radiological control:

\* Cal vicious radius

\* RSDS (fig 3).

\* Consolidation of the scaphoid (Fig. 4).

After a decline of 5 months:

\* Retrieve the function of his elbow,

\* Stiffness and decreased grip strength wrist despite rehabilitation.



Figure 3: X-ray control to 6 weeks



Figure 4: X-ray control to 5 months

#### Discussion:

The combination of a dislocation of the elbow with fractures of the lower quarter of the radius and scaphoid is rare .

Fracture - dislocations bipolar upper limb are rare [1,2]. The combination of elbow dislocation, fracture of the radius and scaphoid fracture has been described once in the literature, most of the observations bifocal lesions rather relate associated wrist

injuries consisting of a dislocation périlunaire carp [ 1 ] . The mechanism is difficult to define , but most likely as in our patient , there is a fall on the member extension [ 3 ] . This position is consistent with the elbow dislocation and fracture of the radius, as well as the mechanism of scaphoid fracture [ 2 ] . This mechanism is often found in young adult males , following a high-energy trauma by traffic accident , fall stairs [ 4 ] . According Soon et al. [ 5 ] , the fracture of the radial shaft is sometimes associated with a dislocation of the elbow or radial head without injury to the wrist. Dislocation of the elbow has also been described associated with Galeazzi fracture dislocation [ 6 ] . The diagnosis of a scaphoid fracture or dislocation périlunaire may go unnoticed at the loudest clinical picture of elbow dislocation and fracture of the radius as in our case [ 4,7 ] .

If support separated different lesions are not a problem, it is obviously at the wrist that the risk of breach of a lesion is more important [ 2,4 ] . In our patient , setting the radius helped stabilize the reduction of dislocation of the elbow was performed in emergency . The latter has always been treated conservatively in all published cases involving concomitant injuries of the wrist and forearm to elbow dislocation [ 2,3,7 ] . According Waaziz et al. [ 4 ] who compared different published cases of concomitant injuries of the wrist and elbow functional outcome depends mainly on the wrist with associated ligament injuries require emergency stabilization . Hence the need to be systematic in reading radiographs of the wrist and elbow in high energy trauma of the upper limb .

#### Conclusion :

The lesions observed in the patient association is rare. Proper treatment is essential to avoid the complications of different lesions add and compromise limb function .

#### Reference

- [1] Najeb Y, Essadki B, Latifi M, Fikry T. Luxation bipolaire de l'avant-bras : luxation du coude et luxation transcapholunaire du carpe (À propos d'un cas). *Chir Main* 2007;26:62-4.
- [2] Masméjean E, Cognet JM. Luxation bipolaire de l'avant-bras : luxation du coude et luxation rétro-lunaire du carpe. *Rev Chir Orthop Reparatrice Appar Mot* 2001;87:499-502.
- [3] Chen WS. Concurrent perilunate dislocation in patients with elbow dislocation: case reports. *J Trauma* 1994;37:504-7.
- [4] Waaziz A, Moujtahid M, Bendriss A. Avant-bras flottant : luxation du coude concomitante à une luxation périlunaire du carpe. *Chir Main* 2006;25:54-7.
- [5] Soon JC, Kumar VP, Satkunanaratham K. Elbow dislocation with ipsilateral radial shaft fracture. An unusual outcome. *Clin Orthop Relat Res* 1996;329:212-5.
- [6] Mezzadra A, Gusmeroli E, Tettamanzi M, Prestianni B, Molinari D. A rare injury to the upper limb: elbow dislocation combined with Galeazzi fracture-dislocation. *Ital J Orthop Traumatol* 1991;17:567-72.
- [7] Kerr CD, Gunderson RJ. Concomitant perilunate dislocation of the wrist with posterior radial head subluxation: case report. *J Trauma* 1995;38:941-3.