Dislocation of the shoulder of associated multiple fractures of the same member


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ABSTRACT

The authors report two cases of rare lesional associations on the same limb segment. Two patients victims of violent trauma showed a dislocation of the shoulder associated with fracture on the same member (the diaphysis and the humeral, diaphysis and distal radius). They were treated in emergency First Direct fractures but without touching the shoulder to reduce the dislocation. The decline was 9 months to one and 6 months for the other. The functional result is satisfactory.

Introduction

The high energy trauma are common in practice skeet bording. We see often multiple injuries (fractures, dislocations, soft tissue damage) in the same patient on the same member or individual members. We report two cases of rare associated lesions treated in the trauma unit Rabat.

Observation 1

He is a young man of 25 years, amateur sports without pathological history particular, an accident of sport. He had a unique impact on the right upperlimb. On admission he showed no vital emergency. The examination revealed a significant shortening and deformation of the left arm and an opening facing the outer skin condyle of about 2 cm, slightly bruised.

Peripheral pulses were present. Limited hand neurological examination showed no deficits especially in the territory of the radial nerve. Radiography of the left upperlimb (Figure 1) showed three lesions on the left humerus: a dislocated shoulder, a fracture of the humeral shaft fracture and an overlying and inter condylar comminuted humeral. Radiographs also showed a fracture of the shaft and the lower end of the humerus.

After preparing the patient is admitted to the block and operated under general anesthesia. The patient is laid supine on the operating table and the upperlimb is prepared. A debridement is performed first then the focus of the fracture is isolated. Then the reduction of the dislocation is obtained first in mobilizing the proximal fragment by forceps. The fracture of the humerus is fractures by a threaded plate, then by the first internalmedial condyle is fixed by one screw. On the radius, an anterior approach that helped to minimize the radial shaftis replaced by a console plate taking the diaphysis of the humeral shaft, a simple fracture of the medial condyle of the humerus is a comminuted fracture of the entire lower limb.

Discussion

The patient recovered mobility. Shoulder satisfactory outside painful limitation of abduction and 70°. It also keeps a limitation of movement of the elbow area between 20° and 100° of flexion. He always follows his rehabilitation program.

Observation 2

He is a young man of 23 years following a sports accident with an impact on the left upperlimb. He was presented to emergency departments with deformations of the arm, forearm and wrist without threatening injuries prognosis. Bruises tretched a cross the member. There was no neurovascular complications or skin opening. Plain radiography showed an anterior mediolateral shoulder dislocation, fracture of the humeral shaft, a simple fracture of the medial condyle of the humerusis a comminuted fracture of the entire lower limb.

Features articular fractures radial epiphysis were particularly complex. The patient was admitted to the unit and operated under general anesthesia in the supine position. After the first home diaphysis of the humerus, the reduction of dislocation of the shoulder is achieved by manipulating the proximal fragment by forceps. The synthesis of the shaftis achieved by a threaded plate, then by the first internalmedial condyle is fixed by one screw. On the radius, an anterior approach helped to minimize the radial shaft is replaced by a console plate taking the diaphysis and metaphysis was then implemented. The epiphysis was not open to any internal synthesis, a fixer bridging the whole was then performed.

The patient did not present postoperative complications and began rehabilitation from pain relief. Fixator was removed at 4 weeks. The current decline is 5 months, the patient has recovered almost normal function of the elbow and right shoulder. Limiting the mobility of the wrist persists without algodystrophy.

Discussion

Both patients had a dislocation of the shoulder associated with a fracture of the shaft and the lower end of the humerus. This association is rare. The mechanism of injury is poorly
described by patients. Much work has described the mechanism of anterior dislocation of the shoulder(1, 2, 3, 4). The movements of abduction and external rotation of the emerging zone of weakness of the capsule bottom and the glenohumeral ligament lower (5, 6, 7) which are not reinforced by the subscapularis muscle in this position (the latter passes as above). These movements associated with a force along the axis of the humerus push the head of the humerus to break the capsular ligament level. Moving the head out of the glenoid is all the greater the energy of the trauma is high (6).

For the patient the first observation the unique impact on his elbows suggest he had his arm in abduction and a certain degree of external rotation during trauma. The high energy trauma had caused the shoulder dislocation and fracture of the humerus without being totally consumed, the head of the humerus then came up against the costal grid. The humeral shaft would then transferred under the effect of the compression. Broken opposite side of the humeral head is in favor of this explanation. Therapeutically we first performed a first of diaphyseal home which allowed us to manipulate the proximal fragment by forceps and palpate the humeral head reduction. Direct pressure on the head helped to print by forceps movements allowed the reduction.

The combination of shaft fractures and humeral limited the choice of synthesis means, other means of diaphyseal fixation as
racking fasciculé Hackethal or nailingwere not feasible (8, 9, 10). Thus the shaftwas fixed by a screw and epiphyseal plate by a pre- molded plate Lecestre .Someauthors (11, 12 )suggestother types of plates (lambda) that would provide a more secure mounting. Weal way sprefeer our method has the advantage of relative ease of removal of the material. For the patient the second observation a simple screw was enough . It was in addition a fracture of the lowerthird of the radius. We discussed the onlyexternal fixation but itseems to us insufficient to maintain a good reduction of a home as long as the radius. Weopted for the combination of a plate screwed diaphysometaphyseal - epiphyseal fixative for distraction thatwas not withoutrisk of infection. The bone plate allowed a contention diaphyseal home and a better transmission of distraction forces to the epiphysis. Strict monitoring was essential to the association to remove the fixative as soon as possible. Despite impressive lesions of our patients, the functional results are correct.

Figure 7: The bone plate on the lower third of the radius associated with an external fixator.

Conclusion
The lesions observed in these patients association is rare. Proper treatment is essential to prevent complications of the different lesions are added and compromise limbfunction.

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