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Case Report

Bilateral and asymmetric dislocation fracture of the shoulder about a case

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ABSTRACT:
According to the literature review, it is found that so far few cases of bilateral dislocation fracture of the shoulder have been documented. The most frequently observed circumstances in these types of injuries are electrocution and convulsions. Dislocation fractures are already rare, but bilateral and asymmetric dislocation fractures are even rarer. **Case Report**: A 48-year-old worker, right-handed, was admitted to the medical emergency rooms following electrification; after being observed for 24 hours, he was allowed to leave the hospital. However, he was discharged to the orthopedic emergency pavilion due to pain in both shoulders. After a clinical and radiological examination, the diagnosis of dislocated fracture of the shoulder was made and the patient was referred to us 9 days after the fire, hence his admission. He received an inverted total prosthesis of the right shoulder and 07 days later another inverted total prosthesis. The patient was immobilized in the neutral position of both shoulders for two weeks, followed by rehabilitation in a rehabilitation center. The patient experienced a significant recovery in the function of both his shoulders, with a constant score of 65 on the left and 70 points on the right. **Conclusion**: The results of these prostheses are promising with an advantage for inverted prostheses, the simple humeral prosthesis almost loses all indication in the treatment of fractures of the proximal humerus. in view of the bad and uncertain results, it is necessary to favor osteosynthesis by plate in young subjects with more attention to the reduction of the trochiter. The shoulder prosthesis must be included in the therapeutic arsenal of these fractures and must be generalized in our country.

Key words: Bilateral dislocation fracture, shoulder, electrification, inverted total prosthesis.

INTRODUCTION:

The treatment of complex fractures of the upper end of the humerus is difficult and the evolution to a vicious callus is not uncommon. The conservative treatment finds its limit in front of the complexity and the comminution of the fracture which is aggravated by the bone fragility rendering obsolete any classical osteosynthesis in the elderly.The necrosis of the humeral head complicates the picture with a rate between 25 and 60%. The shoulder prosthesis is a valid therapeutic option in the treatment of complex fractures of the proximal humerus.

In summary, the case study of a patient suffering from electrification treated late makes it possible to document, evaluate, understand the specific challenges, generate hypotheses, research and improve knowledge and clinical practices in the management of similar cases.

CASE REPORT:

Patient aged 48 years, without medical-surgical history or toxic habit victim of a typical work accident (electrification) in both hands with a strong contraction of both upper limbs occurred 9 days before hospitalization. The patient was evacuated to the medical emergency pavilions by the civil protection kept under observation for 24 hours, 04 days later, he returned to the orthopedic emergency pavilion where the diagnosis was made. Oriented at our level on the 09th day hence his admission. At admission the patient is conscious cooperating in a general preserved state, he presents a functional impotence of the two upper limbs with a deformation of the reliefs of the shoulder, an increase in volume, a shortening of the arm, a vacuum under acromial, an external ax blow on the right and a more marked brachiocephalic bruise of HENNEQUIN on the right. Palpation reveals a sharp pain in the shoulder and a filling of the pectoral delto

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furrow on the right, without skin damage or associated absence of vasculo-nervous disorders.

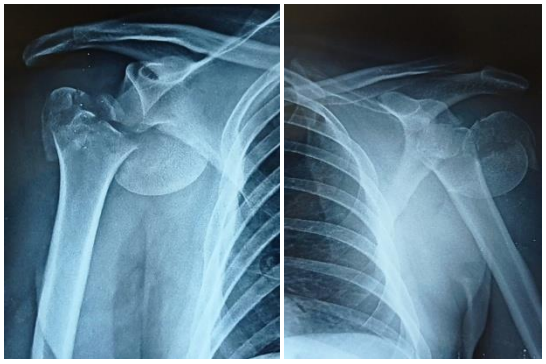

Figure 1: X-ray of both shoulders showing the anterior dislocation fracture on the right and posterior on the left

This electrification caused an anterior dislocation fracture on the right and a posterior dislocation fracture on the left (Figure 1).
These lesions are confirmed by the CT scan which shows the comminution of the fracture, the separation of the two tuberosities, and the anterior position of the humeral head on the right and the posterior position of the left humeral head (Figure 2 and 3).

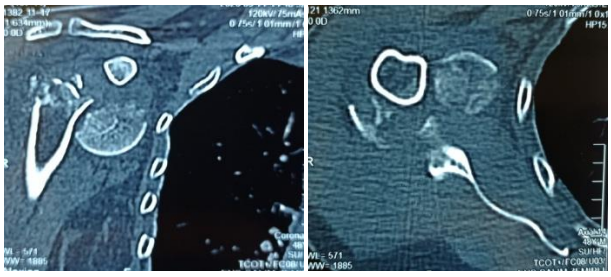

Figure 2: Computed tomography aspects of the lesions of the right shoulder

Figure 3: Computed tomography aspects of the lesions of the left shoulder.

It is therefore a complex dislocation fracture of the two shoulders anterior to the right and posterior to the left.
The patient was taken care of 03 days after admission, 12 days after the incident; he received a total prosthesis of the right inverted shoulder and in a second time (7 days) after another total prosthesis of the left inverted shoulder by deltopectoral Route (Figure 4).

He was immobilized in neutral rotation of both shoulders, for two weeks followed by rehabilitation in a rehabilitation center.

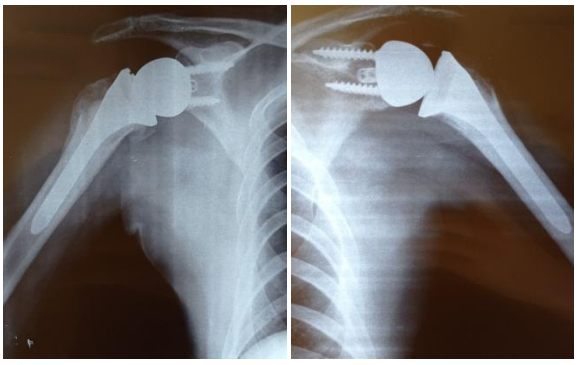

Figure 4: Postoperative X-ray of the right and left shoulder showing the two inverted total prosthesis.

The patient experienced a significant recovery in the function of both his shoulders, with a constant score of 65 on the left and 70 points on the right (Figure 5).

Figure 5: A significant recovery in the function of both his shoulders

DISCUSSION:

The majority of shoulder fractures-dislocations secondary to an electric shock are posterior. Few cases of anterior fractures-dislocations have been reported in the literature. The diagnosis is based on clinical examination and radiography in any patient suffering from a limitation of the movements of a limb following an electrical injury. In our case, the shoulder X-rays, guided by persistent pain and limitation of movements, confirmed the diagnosis of fracture-dislocation of the shoulder. The therapeutic approach to fractures-dislocations of the shoulder after electrical injuries is no different from those of other etiologies. The results are random and not reproducible for the simple Humeral Prosthesis. These results depend on

the correct placement of the prosthesis which is "difficult" and on the consolidation of the tuberosities around the prosthesis (trochiter). The failure rate of simple humeral prostheses exceeds 50% of cases, and this is mainly related to tuberositary complications (migrations, vicious calluses and pseudarthrosis). These failures and complications are due to technical and technological problems, namely, the wrong positioning of the prosthesis (whose height and retroversion are roughly estimated), the wrong positioning of the trochiter (often lowered too much and left too far back), osteosynthesis without radioscopic control and without control of the rotation of the arm, the absence of bone grafting, the use of "massive" implants, unsuitable for the treatment of fractures of the proximal humerus, and the non-consolidation of the tubules with advancing age according to Boileau. In front of the poor results of the simple humeral prosthesis which are close to 60% of cases, the only alternative that remains for the treatment of these complex fractures is the inverted total prosthesis. The choice of the prosthesis for our patient was dictated by the complex nature of the dislocation fracture of the two heads as well as the late character (21 days) portends a necrosis of the two humeral heads.

CONCLUSION:

Dislocation fractures should be suspected when persistent pain and movement limitation occur after an electrical injury and should indicate an X-ray assessment in order to make an early diagnosis.

Patients with bilateral dislocated fractures of the shoulder present a complex therapeutic problem that requires a thoughtful approach.

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