CASE REPORT

Bilateral anterior shoulder dislocation

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SUMMARY

We describe a case of simultaneous bilateral anterior shoulder dislocation in a 70-year-old gentleman post-trauma. There was no associated motor, sensory or vascular deficit. Patient underwent closed reduction for both his dislocated shoulder joints under general anaesthesia followed by immobilisation for 4 weeks, and subsequent follow-up showed good functional outcomes.

BACKGROUND

This report highlights some clinical aspects pertaining to this uncommon injury.

CASE PRESENTATION

A 70-year-old gentleman, with a medical history of osteoarthritis involving several joints including both shoulders, presented to accident and emergency department with severe pain and inability to mobilise both shoulder joints after sustaining a mechanical fall while descending his home stairs. He had fallen down eight steps and eventually landed forcefully onto his both outstretched arms extended wrists and elbows.

In the accident and emergency department, examination of both shoulders revealed a humeral head that was palpable anteriorly, with a defect palpable posteriorly beneath the acromion, and a range of motion limited in all planes at both shoulder joints. There was no sensory or motor neurological deficit, and distal vascular status was intact in both upper limbs.

INVESTIGATIONS

The radiographs showed anterior dislocations of both shoulder joints with no associated fractures (figure 1).

TREATMENT

The patient was taken to theatre and was treated with closed reduction of both shoulders under general anaesthesia on the same day.

Both shoulders were reduced by applying traction at 30° abduction. The left shoulder proving to be more difficult requiring further muscle relaxant (figures 2 and 3).

OUTCOME AND FOLLOW-UP

Postoperatively the right arm was immobilised for 48 h in a broad arm sling, while the left arm was immobilised for a week as it was more difficult to reduce. Then passive and active physiotherapy was started. Subsequent follow-up showed good functional outcomes in both shoulder joints. There was no difference in the Oxford pain scores of both shoulders postmanipulation, which indicated complete recovery of preinjury range of motion and power in both shoulders.

DISCUSSION

The shoulder joint is the most commonly dislocated joint in the human body, accounting for 8.5% of all joint dislocations, of these 95% are directed anteriorly.¹ However, while unilateral anterior shoulder dislocations are much more abundant than their posterior counterparts, review of the literature shows that simultaneous bilateral shoulder dislocations are much more likely to be posterior

Figure 1 X-rays of anteriorly dislocated right and left shoulders.

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Figure 2 X-rays of left shoulder after reduction.

Figure 3 X-rays of right shoulder after reduction.

rather than anterior.^{2–5} The mechanism of injury differs between the two types of dislocations. Posterior dislocations commonly result from maximal involuntary muscle contractions as in epileptic seizures and electric shocks.^{2 6–8} The most frequent mechanism of injury for anterior dislocations is trauma,^{3 6 7} in which the shoulder is positioned in forced extension, abduction and external rotation or subject to a direct blow to its posterior aspect.⁶ Other rare mechanisms of injury include weight training in young patients,^{7 9} seizures,^{4 10} nocturnal hypoglycaemia¹¹ and electric shock.¹²

Learning points

- Upon presentation, patients with suspected unilateral or bilateral anterior shoulder dislocations should be thoroughly assessed for neurological and vascular compromise.
- When checking radiographs care should be taken to ensure that there is no associated fractures of the greater tuberosity, which is a complication seen in about 15% of cases of anterior shoulder dislocations,⁶ and its occurrence indicates associated rotator cuff tear, which has a negative bearing on recovery time and functional outcomes achieved postreduction.¹³

- The principles of management of bilateral shoulder dislocation are similar to those of unilateral dislocations, that is, prompt reduction, and early immobilisation followed by the active and passive physiotherapy.²
- Bilateral dislocations require more intense nursing input, longer rehab periods and thus more lengthy hospital stay. Moreover the force needed to cause this type of injury in the setting of trauma, increases the likelihood of having other associated injuries, which further complicates management and delays discharge. Each shoulder should be treated independently and the outcome can be good as was seen in this case.

Competing interests None.

Patient consent Obtained.

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