Case Report

Acute bilateral anterior dislocations of the shoulders

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Bilateral dislocation of the shoulder is rare, and almost always occurs posteriorly. Such dislocations have been associated with epileptic seizures,1,3 electrocution, sporting injuries,4 trauma and connective tissues diseases. However, there are even fewer documented bilateral anterior dislocations of the shoulders in the literature. We report an unusual case of bilateral anterior dislocation of the shoulders sustained following a trivial fall.

CASE REPORT A 70-year old left-handed woman with no previous dislocation or other past medical history of upper limb injury was admitted to our Accident & Emergency department. She was making her bed and tripped over the wire connected to her electric blanket, fell forward and landed on her right shoulder. She did not recall any injuries to her left upper limb. Subsequently, she was helped to get up by her spouse but noticed she was unable to abduct either arm and that both shoulders were painful to move.

On examination, the patient's right shoulder was very bruised. Both shoulders appeared symmetrical but there was loss of lateral contour.

There was no distal neurovascular deficit and both axillary nerves were intact. No glenohumeral movement was possible in either shoulder and she found it painful to attempt this movement.

Radiography showed anterior dislocation of the left shoulder and anterior fracture-dislocation of the right shoulder with displaced greater tuberosity (Figures 1a and 1b). Both shoulders were reduced using a closed method under Entonox. Bilateral broad arm slings were then applied.

The patient was admitted to the ward for rehabilitation. She was discharged home one week later and went on to recover satisfactorily.

Fig 1a. Anterior dislocation of the left shoulder.

Fig 1b. Anterior fracture-dislocation of the right shoulder with displaced greater tuberosity.

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DISCUSSION

Unilateral anterior dislocation of the shoulder is not uncommon and is one of the oldest reported injuries to man. Bilateral dislocations are very rare, however; to date only a few well-documented reports exist in the literature. Brown 2 analysed the aetiology of bilateral shoulder dislocation and found that trauma, seizure, electrocution and neuromuscular disorders, e.g. myasthenia gravis, cerebral palsy and scapular myopathy are the causes of bilateral anterior shoulder dislocation.

Classical dislocation of the shoulder can be treated satisfactorily with closed manipulation, sling immobilisation and gentle mobilization. However, treatment of shoulder fracture-dislocation can be difficult even in the acute stage. Inexperienced staff should not reduce them routinely as they are sometimes impossible to reduce by closed manipulation and further damage can be caused by over-enthusiastic attempts.3 However, in our case, bilateral shoulder dislocations were treated successfully with closed manipulation.

We present this case firstly as a reminder to readers of the rare possibility of bilateral shoulder dislocations occurring after a relatively trivial fall, and secondly to illustrate some important diagnostic principles in trauma.

Looking for bilateral dislocations is the best way to find them. Taking a good history of the mechanism of injury is the first step in this search. A fall with both arms outstretched may be one such mechanism. Asking for any past medical history of connective tissue disease is also useful, as is obtaining a history of previous injury to the upper limb. Certain injuries will predispose to this dislocation e.g. Bankart lesion, Hill-Sachs lesion.

This case has reminded us of some general principles in diagnosing bilateral injuries. In this case making a diagnosis of a fracture and dislocation of the right shoulder did not prevent the contralateral dislocation being picked up as well, but we are aware of how easily a bilateral injury can be missed in the presence of asymmetrical signs and especially when, on one side, a diagnosis has already been made. Likewise, with the radiographs, a symmetrical appearance may represent normality, but may also represent bilateral dislocation. One should also not hesitate to obtain axial views of the shoulders when clinical suspicion is apparently denied by a normal-looking AP-radiograph.

Good results with bilateral anterior dislocation depend largely on early, accurate diagnosis. This in turn depends on the level of suspicion a doctor has for the diagnosis. Late presentation 2-5 and diagnostic difficulties were documented in the literature and this delay necessitates a large number of open reductions, with correspondingly poorer result. 50% of patients who presented late required open reductions.2 Only early, prompt treatment will ensure a good functional outcome.

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