■ ASPECTS OF CURRENT MANAGEMENT

Posterior dislocation of the shoulder

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Posterior dislocation of the shoulder is a rare but clinically and radiologically well-defined entity. It accounts for less than 2% of all dislocations of the shoulder,[1,2] but is of diagnostic and therapeutic interest because most are missed on the initial examination.[3-6] In a series of 24 patients with posterior dislocation, 21 had not been recognised initially.[7]

There is confusion between posterior subluxation and dislocation. Posterior dislocation is an acute entity associated with trauma and with an impression defect of the humeral head. Its treatment is determined by the size of the defect and the duration of the dislocation. The term dislocation has been applied, but in fact this represents subluxation because some of the articular surface of the humeral head is in contact with the glenoid and some behind it. Recurrent posterior subluxation is a distinct and separate entity which is often not associated with trauma and requires completely different management such as non-operative treatment or posterior reconstruction of the shoulder.[8] The patient complains of pain and instability with his arm in a provocative position usually including forward flexion, adduction and internal rotation.[9] There is also confusion between posterior dislocation and fracture-dislocation.

Posterior dislocation may be associated with fractures of the surgical neck of the humerus or fractures of the tuberosities. Fracture-dislocations have been classified by Neer[10] as two-, three- or four-part posterior fracture-dislocations. They require a different approach and treatment such as osteosynthesis or shoulder arthroplasty.

This report describes the diagnosis and treatment of posterior dislocation of the shoulder with an associated impression fracture of the articular surface of the humeral head. Chronic posterior dislocation of the shoulder has often been referred to as being either 'old', 'missed', 'locked' or 'fixed'. The terms 'locked' or 'fixed' have also been used to describe irreducible acute dislocations associated with an impression defect of the humeral head.[11]

Chronic posterior dislocation of the shoulder is a missed acute posterior dislocation which has been unrecognised for more than three weeks and characteristically there is an impression fracture of the articular surface of the humeral head.

History

A careful history and clinical assessment of the patient are essential, otherwise the diagnosis of posterior dislocation will be missed. The condition is usually caused by an epileptic fit, an electric shock or trauma such as a fall on the outstretched arm. In the case of involuntary muscle contraction, the strong internal rotators (latissimus dorsi, pectoralis major, subscapularis and teres major) simply overpower the weak external rotators (infraspinatus and teres minor).[12]

The main symptom is loss of movement of the involved shoulder, particularly external rotation which results in difficulty in daily activities such as combing the hair and washing the face. When physiotherapy does not improve the range of movement, these patients are referred to the orthopaedic surgeon with the diagnosis of 'frozen shoulder', or post-traumatic stiff shoulder.

Physical examination

On examination the patient typically holds his arm in internal rotation in the adducted position. The arm is locked in internal rotation of between 10° and 60° and neither active nor passive external rotation from this position is possible. The humeral head is fixed on the posterior glenoid rim.

Rowe and Zarins[13] described a test in which there is inability to supinate the forearm when the arm is flexed forwards because of the internal-rotation deformity of the shoulder. There is an increased prominence of the coracoid process anteriorly and of the humeral head posteriorly. These findings are often subtle and in combination with the characteristic marked internal rotation of the arm,

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