

Reduction of missed posterior dislocation of the shoulder

Report of 2 cases, 1 of them bilateral

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We report 2 cases of missed posterior dislocation of the shoulder, 1 of them bilateral. Prominence of the acromion and coracoid, posterior bulging and complete elimination of external rotation of the humerus lead to the diagnosis which was established by an

axillary radiographic view. All 3 shoulders were treated surgically according to Mc Laughlin. At 3-4 years follow-up the function was good and there were no signs of arthrosis or avascular necrosis of the head.

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We report on 2 patients (3 shoulders) with missed posterior dislocation treated by the McLaughlin (1952) procedure.

Case reports

Case 1. A 37-year-old man fell on his outstretched arm and experienced pain at his left shoulder. At the local hospital the condition was diagnosed as a bruised shoulder. Rest, analgesics and physiotherapy failed to improve his condition. The patient visited our department 4 months after the accident. There was slight prominence of the acromion and coracoid process, posterior bulging of the shoulder and complete elimination of external rotation. The anteroposterior radiograph was not diagnostic, but an axillary view revealed posterior dislocation and a bony defect in the humeral head.

Closed reduction under anesthesia was impossible. Open reduction was carried out through a deltopectoral approach. The defect was less than one third of the articular surface. The reduction was stable after transfer of the subscapularis tendon into the defect (McLaughlin 1952). 3 years later, radiography showed no signs of post-traumatic arthrosis or avascular necrosis and the patient was almost painfree. Abduction was 120°, flexion 110°, and external rotation 55°.

Case 2. A 41-year-old male psychiatric patient presented with pain and stiffness of both shoulders. The symptoms had started after an epileptic seizure 1 month previously. In both shoulders the coracoid and

acromion were prominent, and there was no external rotation. Axillary radiographs showed posterior dislocation and a bony defect of both humeral heads. Closed reduction failed. Operative reduction was achieved through a deltopectoral approach. On both sides the defect was less than one third of the joint surface of the humeral head. The subscapularis tendons were inserted into the bony defects of the humeral head. 4 years later the patient had occasional mild pain. Abduction was 130° on the left and 140° on the right side. There was full external rotation of the right humerus and 60° of the left. Flexion is 140° on the left and 160° on the right side. There were no radiographic signs of arthrosis or avascular necrosis.

Case 1.



Axillary radiograph showing posterior dislocation of the left shoulder and defect of the humeral head.

Discussion

Mechanical trauma may cause posterior dislocation of the shoulder, but for bilateral cases the most common cause is epileptic seizure or electric injury (Shaw 1971, Houben et al. 1983, Lenghi and Ranyal 1990). The diagnosis is often missed because of lack of clear radiographic signs on the anteroposterior view (Paton 1979, Houben et al. 1983). If the condition is old, open reduction is required. Different procedures have been described in relation to the size of the impression defect of the humeral head, caused by pressure of the posterior glenoid rim. Aufranc et al. (1966) and Shaw (1971) suggested replacement arthroplasty in cases with a bony defect exceeding 40 percent of the articular surface of the humeral head. Mouterde and Pere (1977) propose arthrodesis in cases with a large bony defect for avoiding posttraumatic arthrosis. Rotational osteotomy of the humerus in such cases has been successfully used by Vukov (1985) and Porteous and Miller (1990). If the defect does not involve more than one third of the articular surface, the Mc Laughlin (1952) transfer of the subscapularis tendon into the bony impression is recommended. In cases with large bony defects treated by the Mc Laughlin procedure, a high incidence of redislocation was reported by Hawkins et al. (1987). Vastamaki and Solonen (1980) reported discouraging long term results due to the development of posttraumatic arthrosis and avascular necrosis of the head. None of the above complications was seen in our cases, probably because of the small size of the defect or the short follow-up time.

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