Case report

Shoulder joint rupture and pseudothrombosis in rheumatoid arthritis

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SUMMARY A patient with rheumatoid arthritis developed sudden unilateral oedema of the right arm resembling vascular obstruction and was shown to have a ruptured shoulder joint.

A 64-year-old man with a 14-year history of seropositive, erosive and nodular rheumatoid arthritis was admitted for assessment. Previous therapy had consisted only of intermittent aspirin. He had a 5-year history of emphysema and chronic airways limitation and had been an alcoholic. Clinical examination showed a man with widespread active synovitis, joint deformities, and multiple nodules. Radiographs showed erosive changes in all affected joints, including shoulders and elbows, with extensive joint destruction in some.

After physiotherapy he was noted to develop sudden painless swelling of his right arm. Examination revealed an oedematous arm with normal pulses and no venous engorgement (Fig. 1). A Doppler study of the brachial and subclavian veins was normal. An arthrogram was performed on the right shoulder by the lateral approach (Fig. 2). Distal extravasation of dye from the joint was demonstrated medially, posteriorly, and inferiorly. The swelling subsided with elevation of the arm, but pitting oedema was still present for 8 days afterwards. The shoulder movements were restored to near normal on conventional therapy 3 weeks after the incident.

Discussion

Acute rupture of the capsule of the knee joint resembling deep calf vein thrombosis has been well described. An adult with chronic synovial rupture of the shoulder joint producing an inflammatory cyst

Fig. 1 Right upper limb showing shoulder joint effusion and pitting oedema (arrowed).

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Fig. 2 Arthrogram of right shoulder.

pointing in the anterior axillary fold has been described.¹ Extravasation from the olecranon bursa has been observed to produce a pseudothrombotic

syndrome in the forearm.² A child with juvenile rheumatoid arthritis suffered recurrent episodes of rupture of both shoulder joints, producing bicipital masses resembling soft-tissue tumours and a haemorrhagic sign at the crease of the elbow.³

This case is apparently the first reported example in an adult of acute shoulder joint rupture producing a pseudothrombotic syndrome. The high hydrostatic pressure of joint effusions may rise further with activity⁴ and could then rupture during physical therapy, as happened in our patient. Shoulder joint rupture should be considered in any arthritic patient who develops upper limb symptoms resembling venous obstructions.

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