live long enough for a planned surgical procedure to be instituted. Up to 1961 only 21 successful pulmonary embolectomies had been reported in the world literature, but since the introduction of cardiopulmonary bypass by Sharp (1962) a large number of successful embolectomies have been reported from many centres (Beale and Cooley, 1965; Cross and Mowlem, 1967; Barraclough and Baimbridge, 1967).

A new view of the natural history of the disease (Sautter *et al.*, 1967) and the introduction of enzyme therapy (Sasahara *et al.*, 1967) have diverted attention away from surgical treatment. Nevertheless, follow-up studies of patients treated for pulmonary embolism with streptokinase and heparin have shown that large areas of lung may remain underperfused one year later (Gunning, 1971). If these studies are substantiated the pendulum may once again swing in favour of surgical treatment, and when cardiopulmonary bypass is not available the possibility of bringing a flying squad from

the nearest cardiothoracic surgical centre to the patient should be explored.

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Synovial Rupture of Shoulder Joint

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Synovial rupture is an uncommon complication of rheumatoid disease. The rupture usually involves the knee joint but may also occur in the elbow and wrist (Dixon and Grant, 1964; Goode, 1968; Jayson *et al.*, 1969.) We report a case in which a patient with destructive arthropathy showing some of the features of rheumatoid arthritis developed sinuses from several joints and then presented with synovial rupture of the shoulder joint. This complication has not been previously described. Release of irritant synovial fluid resulted in swelling, induration, and inflammation of the tissues of the anterior chest wall and axillary fold, mimicking cellulitis or cold abscess formation. The purpose of this report is to draw attention to the clinical features of this rare complication, since antibiotics are unnecessary and incision may encourage infection.

Case Report

A 72-year-old woman was admitted to hospital with a two-year history of polyarthritides which had been treated with indomethacin. Pain and stiffness started in the feet but within 12 months had spread to the knees, hands, and elbows, in that order. Fourteen months after the onset synovectomy of the left elbow was carried out but six months later an inflamed nodule, resembling a furuncle,

appeared in the scar in the left antecubital fossa. This ruptured and then persisted as a sinus discharging blood-stained serous fluid. Progressive arthritis of the knees was complicated by fixed flexion deformity so that she became chairbound. A spontaneous sinus then appeared in the left popliteal fossa and discharged serosanguineous fluid which was normal on microscopy and sterile on culture.

On admission she was bedridden, wasted, and pale, with hepatosplenomegaly and gross flexion deformities of the knees and elbows. Examination showed the classical diagnostic triad of ulnar deviation, rheumatoid nodules, and erosions. The arthritis involved all joints of the limbs but there was relative sparing of both hips and left shoulder. The right shoulder was swollen, fixed, and very painful on movement but not inflamed.

Investigations included haemoglobin 9.0 g/100 ml; E.S.R. (Westergren) 94 mm/hr; serum albumin 2.6 g, globulin 3.6 g/100 ml; and uric acid 2.3 mg/100 ml. Rose-Waaler test was positive at a titre of 1 in 32; serum complement was raised at 40 units/ml but antinuclear factor was not detected. Rectal biopsy showed no evidence of amyloid. A skeletal survey showed severe rheumatoid arthritis affecting the hands, feet, elbows, left knee, and right humerus, and the right glenoid process had been resorbed with adjacent soft tissue calcification.

Soon after admission an area of erythema suddenly appeared anterior to the right shoulder joint. It became increasingly swollen and red, eventually pointing in the right anterior axillary fold. The swelling was tense and slightly fluctuant but was not hot, though dilated veins were present in the overlying skin. There was no tenderness except in the right axilla, she was afebrile, and there was no leucocytosis. Two days later 150 ml of brown opaque fluid was aspirated and an arthrogram showed that contrast material escaped laterally and anteriorly through at least three perforations in the capsule. The inflammation subsided gradually leaving an indurated subcutaneous plaque in the right axillary fold. No organisms were cultured on three aspirations and an arthrogram repeated eight weeks later showed persistent leakage of Hypaque.

Reprint requests should be sent to Dr. N. H. Dyer.

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