

Rheumatoid arthritis, ankylosing spondylitis, and Reiter's syndrome occurring simultaneously

Case report

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SUMMARY Features of rheumatoid arthritis, ankylosing spondylitis and Reiter's disease occurred simultaneously in the same patient. This is a rare finding and appears to be the first published report of such a case.

Case report

A 60-year-old man presented at the genitourinary medicine clinic in December 1980 complaining of a clear urethral discharge and dysuria. His past medical history included a back injury in 1940, urethritis diagnosed and treated in the Royal Navy in 1943, lobectomy for tuberculosis in 1949, non-specific urethritis diagnosed and treated in the Royal Victoria Hospital in 1958, ankylosing spondylitis diagnosed in the same hospital in 1967, iritis in 1968, and painful swelling and stiffness of the joints of both hands and feet in 1976. There was no family history of arthropathy.

On examination he was alert and cheerful. There was a right thoracotomy scar. A clear mucoid urethral discharge was present. Using the criteria that if pus cells fill one quadrant of the microscopic field the result is pus cells + and if four quadrants are filled the result is pus cells + + + +, this patient had pus cells + + +. No *Neisseria gonorrhoeae* were observed or cultured. There were rheumatoid deformities of the hands, ulnar deviation of the fingers, and subcutaneous nodules at each elbow. Spinal flexion was limited, the fingertip-to-ground distance was seven inches, rotational movements were very restricted, and chest expansion was one inch. No iritis, conjunctivitis, or rash was present. He was treated with oxytetracycline 250 mg, one tablet four times daily.

One week later he complained of sudden painful swelling of both feet and a tender right testis. On examination he had circinate balanitis (fig 1) and

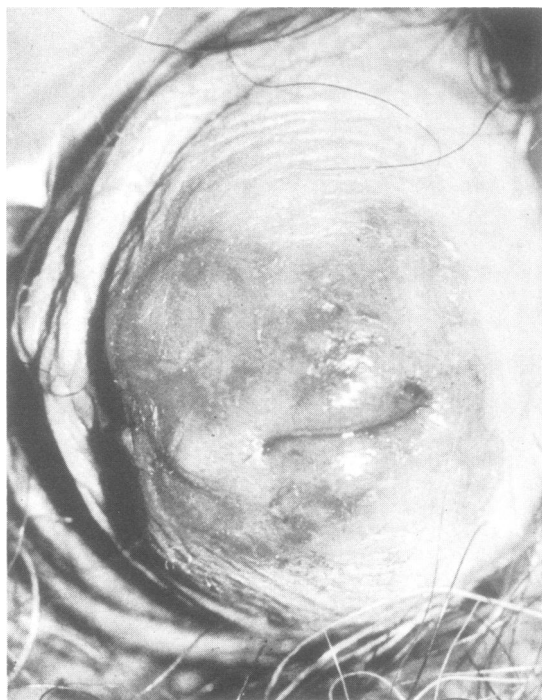


FIG 1 *Circinate balanitis.*

right epididymo-orchitis. The joints of both feet and hands were acutely swollen and painful, allowing only a little passive movement.

On admission to hospital initial investigations showed an erythrocyte sedimentation rate of 115 mm /first hour, which one week later had risen to 130 mm /first hour; Hb was 11.2 g/dl (normal 12-18 g/dl), mean corpuscular haemoglobin 25.1 pg (normal 27-32 pg), and a white cell count 12.7 ×

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FIG 2 Radiograph of right and left hand showing multiple erosions particularly in the metacarpophalangeal joints.

$10^9/1$ (normal $4-11 \times 10^9/1$). The urinary excretion of hydroxyproline was $0.9 \text{ mmol}/24 \text{ h}$ ($117.9 \text{ mg}/24\text{h}$) (normal range $0.11-0.35 \text{ mmol}/24 \text{ h}$; $14.4-45.8 \text{ mg}/24\text{h}$). Chlamydial antibodies were not present in the serum by the lymphogranuloma venereum complement-fixation test. No culture for *Chlamydia trachomatis* was undertaken but cultures for urinary pathogens gave negative results. IgM rheumatoid factors were detected by the rheumatoid arthritis latex test using pooled human gammaglobulin-coated latex particles (Hyland), and the Rose-Waaler differential agglutination titre was 8 (normal ≤ 16); HLA-B27 was present. Radiographs showed multiple articular erosions in both hands (fig 2) and in the right medial malleolus. The lumbar spine and sacroiliac joints showed typical advanced ankylosing spondylitis (fig 3). A biopsy (fig 4) of the nodule from the right elbow showed foci of fibrinoid necrosis with some palisading of histiocytes characteristically seen in rheumatoid disease.

He was treated with rest in bed, oral iron, azapropazone, and naproxen. The haematological indices

returned to normal, the ESR fell to $60 \text{ mm}/\text{first hour}$, and he was symptomatically improved on discharge one month later.

Discussion

Rheumatoid arthritis, with chronic deforming symmetrical arthritis, radiological erosions, and histologically confirmed nodules, was present in this patient. The association of ankylosing spondylitis and rheumatoid arthritis is rare¹; in the Mayo Clinic series where 7135 patients with rheumatoid arthritis and 1162 patients with ankylosing spondylitis attended from 1970-74, the diseases occurred simultaneously in only two cases. Statistically, they would occur together by chance in 1 in 50 000 to 1 in 200 000 cases.² The diagnosis of ankylosing spondylitis in this man was based on the findings of limitation of spinal movements in two planes, bilateral sacroiliitis, and typical vertebral ankylosis. Prostatitis may be present in 80% of patients with ankylosing spondylitis.³ In our patient pus cells ++ were observed after

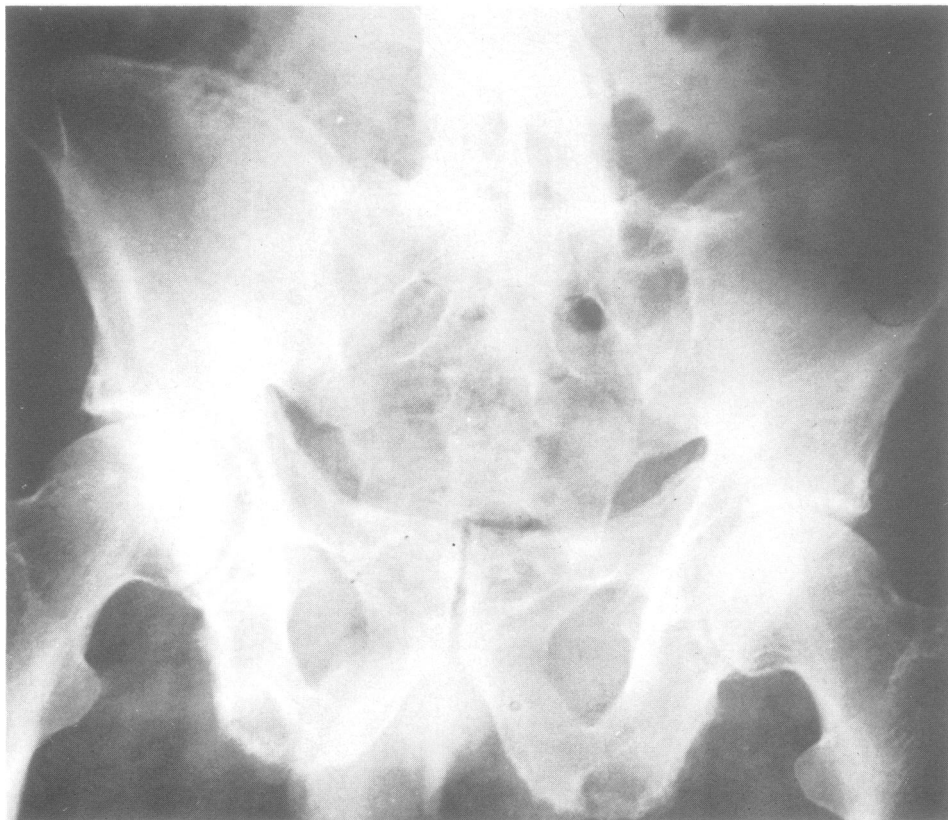


FIG 3 Radiograph of sacroiliac joints and lumbar spine showing bilateral sacroiliitis and vertebral ankylosis.

prostatic massage. A diagnosis of Reiter's syndrome was made in view of the circinate balanitis, epididymo-orchitis, and acute arthropathy superimposed on the previous arthritis. Rheumatoid arthritis may be associated with Reiter's disease and a family incidence has been reported. Good⁴ described a family of three brothers, one of whom had Reiter's disease followed by rheumatoid arthritis, one had Reiter's disease followed by ankylosing spondylitis, and one Reiter's disease; their father had rheumatoid disease. There was no family history in this case, which appears to be the first report of ankylosing spondylitis, rheumatoid arthritis, and features of Reiter's syndrome occurring in the same patient.

References

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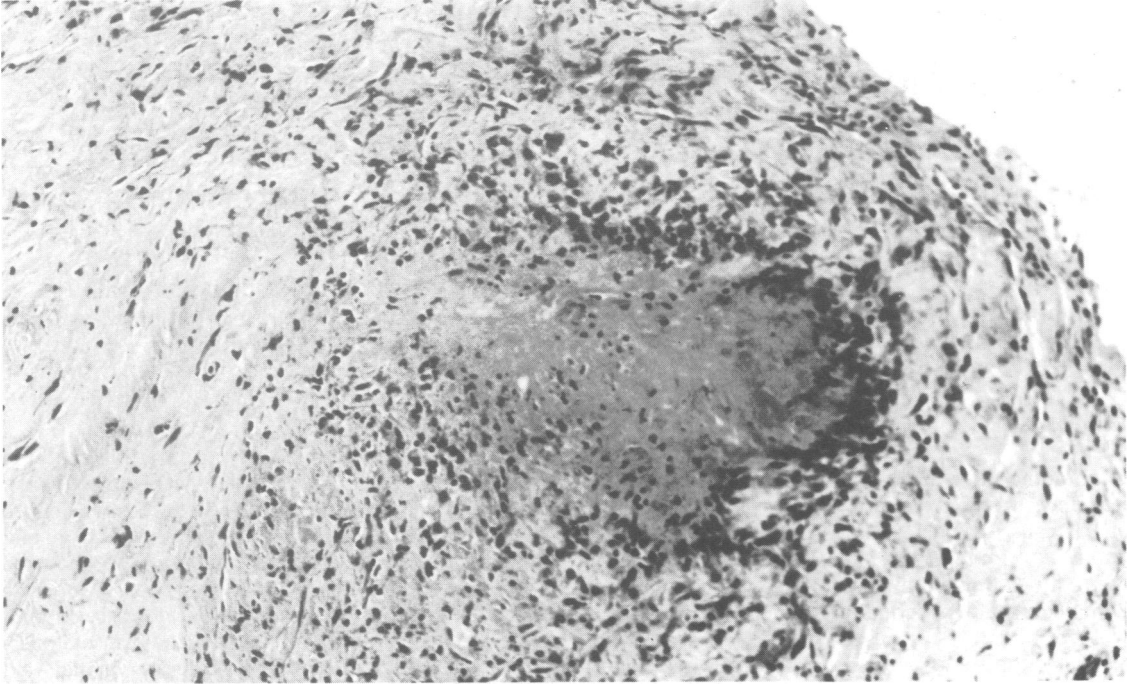


FIG 4 *Section of subcutaneous nodule showing foci of fibrinoid necrosis with some palisading of histiocytes ($\times 100$).*