Case report

Palindromic rheumatism and Felty's syndrome

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SUMMARY The coexistence of palindromic rheumatism and Felty's syndrome in a single patient is described. It is likely that these two manifestations are linked with the patient's possession of HLA-DR4 and that they are prodromata of the patient's eventual development of rheumatoid arthritis.

Palindromic rheumatism and Felty's syndrome are distinct clinical entities that form part of the spectrum of rheumatoid arthritis (RA).^{1 2} Palindromic rheumatism is frequently a prodrome of rheumatoid arthritis, but Felty's syndrome is usually associated with established disease. We describe a patient who developed neutropenia and splenomegaly one year after the onset of seropositive palindromic rheumatism.

Case report

A 48-year-old Caucasian woman with a past history of primary hypothyroidism treated with thyroxine, suffered an acute attack of pain, swelling, and redness of her right middle metacarpophalangeal joint that resolved spontaneously after two days. Two months later a similar episode lasting four days affected the dorsum of her left hand.

Subsequent examination was normal, and investigations showed haemoglobin 14.1 g/dl, white blood cell count $3.7 \times 10^9/l$ (no differential count recorded), erythrocyte sedimentation rate (ESR) 30 mm/h, and positive latex test ($>1/320$). Radiographs of hands and feet showed only mild degenerative changes. A diagnosis of palindromic rheumatism was made.

One year later she presented with discomfort and swelling of her left ankle. On examination she was found to be febrile (37.8°C) and there was an area of erythema and swelling immediately posterior to the left medial malleolus, with erythema alone extending to the upper third of the calf. There was no

evidence of synovitis or lymphadenopathy, and the spleen was not palpable. Investigations showed haemoglobin 13.3 g/dl, white blood cell count $1.9 \times 10^9/l$ (6% neutrophils), platelets $236 \times 10^9/l$, ESR 68 mm/h, positive latex test (1/160), and a negative test for antinuclear antibody.

In view of the profound neutropenia the possibility of Felty's syndrome was raised and abdominal ultrasound examination showed an enlarged spleen. The bone marrow was hypercellular with active granulopoiesis only up to the metamyelocyte stage. Erythropoiesis appeared normal, and megakaryocytes were plentiful. Tissue typing proved technically difficult on both the occasions that it was performed but recognisable HLA antigens included HLA-DR4. These features supported the diagnosis of Felty's syndrome, other causes of splenomegaly and neutropenia having been reasonably excluded. Clinically it was not possible to distinguish between infective cellulitis of the left ankle and a par-articular episode of palindromic rheumatism so treatment included benzylpenicillin, and the signs settled after four days.

Three days after admission she developed acute pain, swelling, and redness of the right middle metacarpophalangeal joint that resolved within two days. Shortly after discharge she experienced a further short lived attack of inflammation affecting the dorsum of the left foot.

Discussion

Since Hench and Rosenberg first described palindromic rheumatism¹ it has become increasingly recognised that at least one third of cases go on to develop RA.³⁻⁸ A persistently raised ESR, a posi-

tive latex test, and possession of the tissue antigen HLA-DR4, as in the case reported here, make the progression to RA more likely.⁹ In this palindromic form extra-articular features, apart from transient nodules, are rare.¹

Felty's syndrome consists of the triad of RA, splenomegaly, and neutropenia, but splenomegaly and neutropenia may occur before the arthritis.¹⁰⁻¹² There is a strong association with the tissue type HLA-DR4, which has been reported to occur in 95% of cases.¹³

The association of palindromic rheumatism with features typical of Felty's syndrome has not to the best of our knowledge been previously reported. Pathogenic explanation for the coexistence of these two disorders can only be a matter of speculation. Thompson *et al.*¹⁴ found raised immune complexes predominantly in patients with palindromic rheumatism who had positive rheumatoid factor tests. It is known that immune complexes adhere to and are phagocytosed by neutrophils, and it has been proposed that immune complex laden cells are more likely to become sequestered in the spleen,¹⁵ thereby leading to neutropenia.

RA is known to be a systemic disease with many clinical manifestations which may present in an apparently random order. Accordingly it is to be expected that occasional patients will be seen in whom palindromic rheumatism and Felty's syndrome coexist.

We thank Dr G Storey for permission to report a case under his care and Dr A Newland for reporting the bone marrow.

References

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Notes

Postgraduate nursing course

A four-week full-time course on nursing care and rehabilitation of patients with rheumatic diseases will be held at the Royal Bath Hospital, Harrogate, North Yorkshire, from 21 October to 15 November 1985. The course fee is £135. Twelve places will be available. Details from Mr A G Brown, Senior Nursing Tutor, Continuing Education, Harrogate School of Nursing, Scotton Banks Hospital, Ripley Road, Knaresborough, North Yorkshire HG5 9HD.

Metro A Ogryzlo International Fellowship

The sixth Ogryzlo Fellowship, which carries a stipend of US \$22 000 per year, will be awarded for training in rheumatology at a Canadian Rheumatic Disease Unit for the 12 months commencing 1 July 1986. Details from The Arthritis Society, 250 Bloor Street East, Suite 401, Toronto, Ontario M4W 3P2, Canada, to whom applications must be submitted by 15 October 1985.