Failure of D-penicillamine to affect peripheral joint involvement in ankylosing spondylitis or HLA B27-associated arthropathy

Sir,
We have treated 7 patients with peripheral joint involvement in ankylosing spondylitis or HLA B27-associated arthropathy with D-penicillamine and all failed to show improvement.

D-penicillamine has been shown to help peripheral joints in rheumatoid arthritis, and Golding (1974, 1975) has claimed spinal improvement in an uncontrolled study on patients with ankylosing spondylitis. We have tried the effect of this drug in 5 patients with ankylosing spondylitis, judged by sacroiliitis and typical spinal column involvement, who also showed involvement of joints outside the spine. 2 additional patients had HLA B27-associated arthritis and were negative for circulating rheumatoid factor.

Treatment with D-penicillamine was started in hospital with all the usual precautions for regular clinical inspection, urine tests for protein, and blood tests to detect changes in haemoglobin, white cells, platelets, and plasma viscosity. All the patients with ankylosing spondylitis and peripheral joint involvement had a severe and active disease which had failed to respond to more conventional treatments. Penicillamine was given over a period of 2 to 16 months in a rising dosage. The final dosage varied from 250 mg to 1000 mg a day. The period of build-up to maximum dosage varied from 4 to 16 weeks. Patients remained on their normal anti-inflammatory medication in stable dosage throughout the study.

Six patients discontinued the drug and at the time of writing only one patient remained on it without objective improvement. None of the patients discontinuing the drug had noted improvement in pain, stiffness, or range of movement. Serial spinal measurements on 3 of these patients showed no change and serial blood tests remained unaltered.

Although not a controlled trial, this study suggests that D-penicillamine is not helpful in the peripheral arthropathy of ankylosing spondylitis or HLA B27-associated arthritis. At the time of writing we are aware of only two placebo controlled trials (Multicentre Trial Group, 1973; Dixon et al., 1975) showing benefit in rheumatoid arthritis. Both of these excluded patients seronegative for circulating rheumatoid factor. Thus there have been no placebo controlled trials as yet which have shown that seronegative polyarthritis of any kind responds to D-penicillamine and it remains a possibility that seropositivity to rheumatoid factor is a prerequisite for a favourable response.

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References