Case report

Recurrent rheumatic fever

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SUMMARY

Although recurrent rheumatic fever in adults is uncommon and the recurrence rate declines with age and with the interval from the attack, we describe a patient who has had four attacks of rheumatic fever, two in childhood and two in adult life.

A 59-year-old Caucasian schoolkeeper was admitted with migratory polyarthritis. At the ages of 6 and 12 he was diagnosed as having rheumatic fever and treated with bed rest. He was rejected from National Service because of a cardiac murmur. In 1969 he presented to another hospital with a flitting polyarthritis and pyrexia, 10 days after a sore throat. A pansystolic murmur in the mitral area was noted. The antistreptolysin O (ASO) titre was greater than 800 IU and the erythrocyte sedimentation rate (ESR) was 100 mm/h. He was treated with steroids and penicillin for seven years. He remained well until June 1983, when seven days after a pharyngitis he developed transient pain and swelling of the left ankle and later of the left knee. On admission his temperature was 38°C, with no rash or nodules present. The pulse was regular at 100 beats/min and blood pressure 110/80 mmHg. The first heart sound was loud and a pansystolic murmur was heard at the apex. There was no splenic enlargement. The left knee and ankle were warm, with synovial swelling and reduced ranges of movement; other joints were normal. Investigations revealed a haemoglobin of 12.9 g/dl; a white cell count of 10·1 x 10⁹/l; and an ESR of 120 mm/h. The ASO titre rose from 1600 IU just before admission to 3200 IU during admission. Tests for rheumatoid factor and antinuclear antibodies were negative. Repeated throat swabs and blood cultures were sterile. Urinary culture and microscopy were negative. Australia antigen and yersinia agglutination tests were negative. The chest radiograph was normal and the electrocardiogram (ECG) showed a sinus tachycardia with a normal PR interval. Echocardiography showed evidence of mixed mitral valve disease with no vegetations.

A diagnosis of recurrent rheumatic fever was made. The patient was treated with bed rest, soluble aspirin, and penicillin V. He rapidly became apyreal, though his tachycardia persisted for 14 days before settling after 20 mg prednisolone daily was commenced. He made an uneventful recovery and was discharged on the 35th day taking 17·5 mg prednisolone daily and penicillin V. At the time of discharge his ESR was 26 mm/h. On follow up two months later he reported some transient hip pain but otherwise remained well. His ESR was 42 mm/h and his ASO titre 1600 IU. Steroid treatment was gradually stopped but he continued on prophylactic penicillin.

Discussion

This patient satisfies the modified Jones criteria for the diagnosis of rheumatic fever. The case is of interest for two reasons. Firstly, attacks of rheumatic fever later in life, though described in the nineteenth century, have rarely been described in modern times. Most cases of rheumatic fever occur in childhood or early adulthood. Secondly, the patient was in contact with a population known to be at high risk of streptococcal infections. This, together with the rheumatic heart disease, may have accounted for his recurrent attacks. We would agree that those individuals with chronic rheumatic heart disease who are exposed to streptococcal infections during military service, in health care professions, or
when working with children should be maintained on lifelong antibiotic prophylaxis.

References

4 Bywaters E G L. Personal communication.