ARTHRODESIS FOR RECURRENT MANUBRIOSTERNAL GOUT

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Gout commonly involves joints of the extremities. Involvement of amphiarthrodial joints of the axial skeleton is extremely rare, but has been described in the symphysis pubis (Resnick and Niwayama 1981) and intervertebral joints (Vinstein and Cockerill 1972). We have been able to find only one reported case of manubriosternal gout (Kernodle and Allen 1986).

Case report. A 50-year-old man presented with a one-year history of recurrent severe pain and swelling at the manubriosternal joint. There was no history of trauma and he denied any history of acute or chronic arthritis. He drank 40 pints of beer per week. On examination he was afebrile with an exquisitely tender manubriosternal joint and overlying redness and oedema. Elsewhere, there were no tophi or synovitis.

The only serological abnormalities were raised gamma glutamyl transferase to 8.7 IU/l and serum urate to 532 mmol/l. A lateral sternal radiograph revealed patchy soft-tissue calcification, 'punched out' cortical erosions and hypertrophic changes (Fig. 1). Aspiration yielded a few drops of blood-stained fluid, which was negative to culture. Clumps of monosodium urate crystals were seen on polarising light microscopy, confirming the diagnosis of gout.

The patient was started on indomethacin and advised to abstain from alcohol. Ten weeks later his symptoms had improved, and his serum urate had dropped to 195 mmol/l. Allopurinol was added to his treatment. Over the subsequent five years, however, he suffered from numerous recurrences with progressive shortening of the period between each attack. His disability became such that it was decided to perform an arthrodesis.

Operation. Through a horizontal incision the joint surfaces were excised and curetted. Cancellous bone graft from the iliac crest was packed firmly into the resulting defect and the soft tissues were closed. The patient was advised to refrain from vigorous activity for eight weeks. At three months he was asymptomatic with a clinically and radiologically sound arthrodesis.

Discussion. The manubriosternal joint is a symphysis. In 30% of people the central part of the fibrocartilaginous disc undergoes absorption and the joint comes to resemble a synovial joint; the same change may occur in the symphysis pubis (Warwick and Williams 1973). Gout usually affects synovial joints and it may be that this change allows the manubriosternal and pubic symphyses to be affected. The manubriosternal joint is not commonly affected in rheumatoid and psoriatic arthritis and our case shows that gout should be considered in the differential diagnosis. Arthrodesis for a gouty joint has not been previously prescribed. It may offer the surgeon an alternative when conservative measures have failed.

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REFERENCES


