CASE OF INTEREST

Acute Haematogenous Osteomyelitis of the Clavicle

BLOOD borne acute osteomyelitis of the clavicle is an uncommon lesion and when occurring in the membranous part of the clavicle is rare. A recently treated case is described.

Case report

R.C., a Jamaican boy, aged 9, was admitted to hospital on 2 July 1971 having fallen downstairs six days previously. He complained of pain in the right shoulder on the following day. Two days later, a painful swelling appeared over the medial half of the clavicle. A fracture was suspected, but a radiograph showed the clavicle to be normal. The swelling and pain increased over the next four days and he became febrile.

On admission he looked ill, had a temperature of 102.4°F and there was a large, red, tender swelling over the medial two-thirds of the right clavicle and upper chest. Supraclavicular and axillary nodes were not palpable. No other focus of infection was found.

The white cell count was 19,200/mm³ and the E.S.R. was 86 mm in one hour. The blood film showed no abnormal red blood cells, and the sickle test was negative. The repeat X-ray of the right clavicle still showed no abnormality (Fig. 1).

At operation, on the day of admission, an abscess was found over the central part of the clavicle internal to the periosteum. The abscess was drained, and on drilling the clavicle over the middle third further pus welled out.

On culture coagulase positive Staphylococci sensitive to penicillin and cloxacillin were isolated.

Follow-up X-ray of the right clavicle showed no change until 19 July when alteration of the trabecular pattern was noted in the middle third of the clavicle (Fig. 2). On 28 July, however, the classical changes of osteomyelitis were well established (Fig. 3).

The patient was treated with penicillin and cloxacillin for a period of six weeks.

Comment

A study of the literature reveals but few cases.

Beresford (1922) recorded a case of acute suppurative osteomyelitis in which the whole of the clavicle was involved.

Bercovitz (1924) reported a case from China involving the whole of the clavicle, following tonsillitis.

Grey (1945) reported osteomyelitis of the Acromial end of the clavicle following minor trauma.

de Belder (1955) presented a case to the East Anglian Orthopaedic Club in which osteomyelitis developed in the clavicle following tonsillitis and cervical lymphadenitis. In discussion, however, it was suggested that the infection had arisen by direct spread from the cervical lymphadenitis rather than blood-borne infection.

Fig. 1. Radiograph on admission showing normal clavicle.

Fig. 2 Radiograph showing alteration to trabecular pattern at 19 July 1971.

Fig. 3. Clavicle showing destruction of trabeculae and elevation of periosteum at 28 July 1971.

Glav (1961) in an exhaustive account of the destructive lesions of the clavicle, mentions suppurative acute and chronic osteomyelitis of the clavicle, but illustrates this was a case of post-operative infection following open reduction for fracture.

Ormonde (1963) reported a case in Ulster of suppurative osteomyelitis of the whole of the clavicle following tonsillitis and consolidation of the left lung.

Kato (1968) described a case of bilateral clavicular osteomyelitis with palmar and plantar pustulosis.

The case presented here is of interest in that no other has been found in the literature where acute suppurative haematogenous osteomyelitis has been shown to have originated in the membranous portion of the clavicle.

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