BILATERAL DISLOCATION OF THE PROXIMAL HUMERAL EPIPHYES IN SEPTIC ARTHRITIS: A CASE REPORT

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Intra-articular epiphyses are at risk in septic arthritis and severe epiphyseal damage is commonly seen in the hip, particularly in neonates and infants. In the first five years of life septic arthritis of the shoulder can also result in damage to the upper humeral epiphysis, but in the older child and young adult this is uncommon. Pathological displacement of the upper humeral epiphysis has not been previously reported.

Case report. A 15-year-old boy presented to a district hospital with a history of fever and painful joints. The left ankle and both shoulders were warm, swollen and tender. There was no history of epilepsy and no family history of diabetes, nor had the boy suffered previous episodes of high fever or trauma. The radiograph revealed displacement of both upper humeral epiphyses (Fig. 1). Both shoulders were incised and 200 ml of pus were drained from each joint.

Fig. 1

Two weeks after the onset of symptoms the patient was referred to Gweru hospital for further management. He looked pale and toxic and had a temperature of 39.6°C. Both shoulders were still swollen and tender and the right shoulder was draining pus. The right ankle was painful and swollen. A malaria smear revealed no parasites and the other laboratory results were as follows: Hb 8.9 g/dl, WBC 15000/μl, ESR 150 mm/hr, RA latex negative, HIV test negative, VDRL test for syphilis negative. Cultures of the pus grew Staphylococcus aureus, sensitive to cloxacillin, methicillin, clindamycin, gentamicin and tetracycline. He was treated with cloxacillin, 2 g six-hourly intravenously, and, although the malaria smear was negative, a course of chloroquine was given. He improved rapidly.

On the day after admission a second drainage of the right shoulder released 100 ml of pus, and removal of the sequestrated head of the right humerus was carried out one week later. The proximal humerus was positioned in the glenoid fossa and the capsule was partly sutured over it. Treatment with cloxacillin was continued for six weeks.

The patient recovered well, but the function of the shoulders was seriously impaired. One month after removal of the humeral head, movements of the right shoulder were limited to 45° flexion, 10° extension, 60° abduction and 5° adduction. The left shoulder had 30° flexion, 5° extension, 25° abduction and 10° adduction. The radiograph of the left humerus showed signs of osteomyelitis but there were no clinical signs of active infection.

Discussion. Septic arthritis of the shoulder is uncommon in children. Gillespie (1973) found an incidence of only 3% in his series and Nelson (1972) 4%. Schmidt, Mubarak and Gelberman (1981) stated that it is essentially a disease of infancy. We have not found any report of the incidence of septic arthritis of the shoulder in adolescents.

Bilateral epiphyseal displacement has not been previously reported. Presumably, thrombosis of the vessels in the epiphysis resulted in avascular necrosis of the head of the humerus. Reduction of the epiphysiolysis was not possible because of the active infection and the head of the right humerus was removed since it was acting as a sequestrum.

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REFERENCES


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