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Septic arthritis and unpasteurised milk

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Abstract

Green-top, or unpasteurised, milk is an increasing source of illness. A case of a previously unreported cause of septic arthritis of the hip joint, secondary to the ingestion of raw milk is reported.

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Case report

A 57 year old woman was admitted to hospital with a 10 week history of pain around the left hip. There had been no precipitating injury or previous similar problems. An *x* ray picture (fig 1) at the onset of the symptoms had shown moderate degenerative changes only. The pain had persisted and there had been no other associated symptoms. There was no clinically relevant medical history.

Examination showed that the patient had no fever. The left hip was held in 30° of fixed flexion with severe quadriceps wasting. All hip movements were painful and restricted.

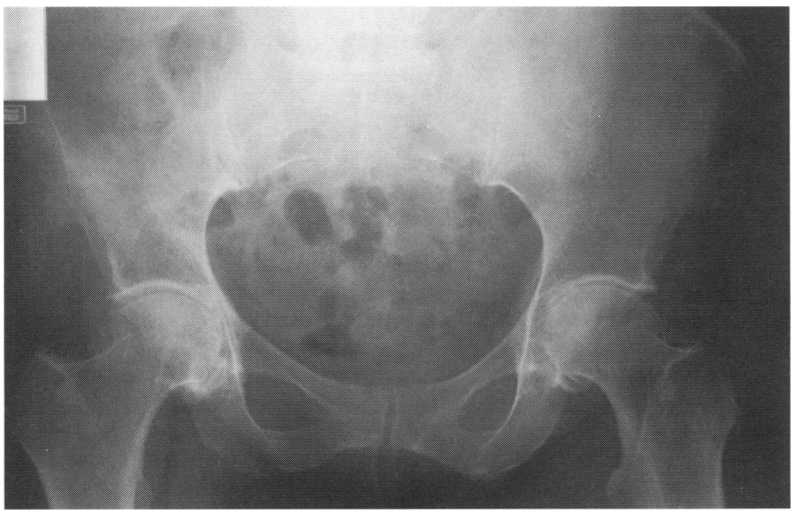

Figure 1 X ray picture showing moderate degenerative changes.

The rest of the examination yielded completely normal results. *X* ray pictures on admission (fig 2) showed obvious destruction of the left hip joint. Initial blood tests showed a raised white cell count and plasma viscosity, but a normal bone biochemistry profile. Chest *x* ray picture was also normal.

Aspiration of the hip produced a sample of viscid pus, culture of which gave a pure growth of *Streptococcus lactis*. Acid fast bacilli were neither seen on microscopical examination nor cultured. Other investigations, including blood glucose, rheumatoid factor, and brucellosis titres were normal. An isotope bone scan confirmed increased isotope uptake around the left hip, but no other septic foci. In view of the established joint destruction open drainage of the joint was not performed and the patient was managed conservatively with initially intravenous, and then oral, penicillin, straight skin traction to the left leg, and two hours of lying prone daily.

The pain gradually settled and the patient was mobilised in a hip spica to encourage the development of a painless ankylosis. Antibiotics were continued for six weeks and the spica retained for a total of three months. When reviewed at eight months after discharge, there was some shortening of the left leg secondary to a 30° fixed flexion deformity at the hip, but the patient was walking with one stick, had no rest pain, and only minimal discomfort on activity which was improving.

On further questioning prior to discharge, the patient stated that she came from a farming community and drank exclusively unpasteurised milk.

Discussion

The principles of treatment of bacterial arthritis are drainage of the joint, culture of the organism, antibiotics and articular rest. There are no prospective trials comparing

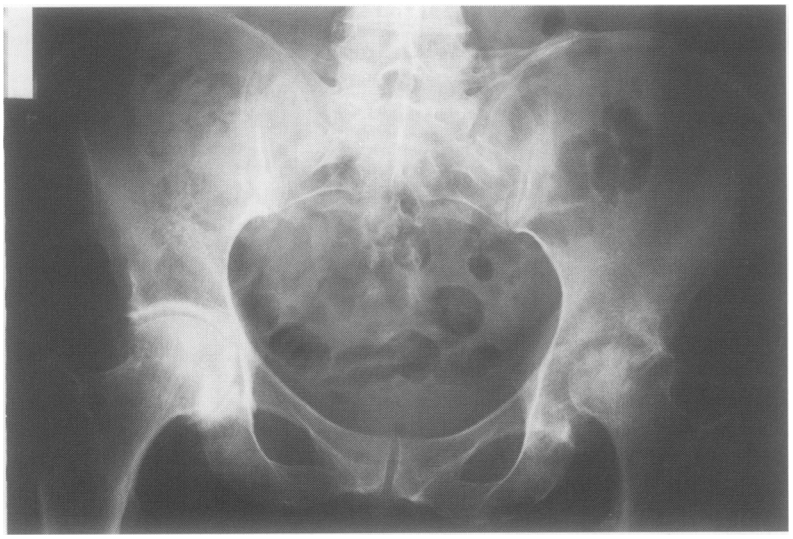

Figure 2 X ray picture showing obvious destruction of the left hip joint.

repeated needle aspirations with open drainage, although the latter is usually preferred for septic arthritis of the hip, especially in children.[1] In the presence of established joint destruction there is no evidence that open drainage affects the final outcome.

The most common pathogen causing bacterial arthritis in healthy adults is *Neisseria gonnorrhoeae.*[1] *Staphylococcus aureus*, streptococci species, and Gram negative bacilli usually affect patients with pre-existing risk factors, such as diabetes, rheumatoid arthritis, liver cirrhosis, previous joint damage, intravenous drug misusers and immunocompromised conditions. *Streptococcus lactis* is a skin commensal in cattle and it is from this site that it is thought to contaminate milk.[2] It is a rare cause of disease in men and there has been only one previous report of a serious *Streptococcus lactis* infection.[3]

Salmonellosis, *Campylobacter enteritis*, and other infections acquired from the ingestion of raw milk are an increasing cause of human illness,[4] and can be fatal. Although, the sale of untreated farm-bottled milk is illegal in Scotland, unless similar legislation is extended to cover the whole of the United Kingdom, there will continue to be numerous cases of serious, or even fatal, diseases caused by milkborne organisms.

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