(after a partial colectomy), contributing to if not actually causing a general peritonitis. They had evidently forced their way through the suture line. The worm certainly has a predilection for "the narrows."

In yet another case of common-duct obstruction, operated on since the above was written, I found entangled in the biliary sludge and calculi the blackened and compressed remains of a single ascaris.

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Stress Fracture of the Metatarsal in Childhood

The diagnosis of stress fracture of the metatarsals (march fracture) is rarely made in childhood. Two cases seen during one year at a surgical unit in the Royal Hospital for Sick Children, Glasgow, are here reported.

Case Reports

Case 1.—A girl aged 9 was brought to hospital with a complaint of pain in her right foot of three weeks' duration. There was no history of injury. A year previously she had been treated for an acute osteitis of her right femur which necessitated a period of rest in bed. On examination the dorsum of the foot was slightly swollen, but there was neither redness nor any detectable increase in skin temperature. Tenderness was present along the shafts of the second and third metatarsals. A radiograph (Fig. 1) revealed a transverse fracture of the third metatarsal shaft surrounded by a cuff of callus. This was interpreted as a "march" fracture, and the use of shoes with heavy leather soles was advised. There was rapid subsidence of the symptoms, and later radiographs showed the progress of healing and restoration to normal architecture characteristic of "march" fracture (Fig. 2).

Case 2.—A boy aged 6½ had a pain in his right foot of one week's duration. There was no history of injury, of any previous bony infection, or other illness. Examination revealed slight swelling of the dorsum of the foot, local heat, but no redness. There was tenderness along the second and third metatarsal bones, and x-ray examination revealed a slight raising of the periosteum of the second metatarsal.

FIG. 1.—Case 1. Fracture with callus of third metatarsal. Note sesamoid bones at head of first metatarsal.

FIG. 2.—Case 1. Note backward continuation of first inter-metatarsal space.

On these criteria a diagnosis of acute osteitis was made. At operation, however, the periosteum was found to be intact and healthy, and there was no evidence of any pus formation (suggesting that the diagnosis was not correct). With rest in bed the swelling and pain subsided, and a radiograph one week later revealed a transverse fracture of the shaft of the second metatarsal with the cuff of callus characteristic of "march" fracture. Later x-ray films showed the same restoration to normal bony architecture as in Case 1.

Comment

The aetiology of stress fracture of the metatarsals is obscure. Predisposing factors suggested are a developmental structural weakness, muscular inefficiency, and trauma. Morton (1927) has described four signs or defects seen on x-ray examination which, he maintains, indicate a potentially weak foot. Dodd (1933), studying a series of 14 radiographs of "march feet," found one or more of these defects in each case. In the present series several of Morton's signs were present. Barns (1943), discussing the condition as found in Service recruits, stated that "it tends to occur in recruits who led inactive lives before entry into the Service. This must therefore be accepted as the predisposing cause." Inactivity in the sense implied is almost unknown in childhood, but in Case 1 the period of immobilization made necessary by the infection of the femur might conceivably have produced a muscular hypotonicity sufficient to permit damage to a potentially "weak" foot. Lastly, though no history of injury was obtained in either of the present cases, it should be remembered that the history in childhood is often unreliable.

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