Open anterior dislocation of the hip in a child

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A 6-year-old boy sustained an open anterior dislocation of the hip through the scrotum. Debridement and reduction were immediately carried out. After 18 months, necrosis of the head of the femur was observed.

Traumatic dislocation of the hip in children is rare (Henderson 1951, Pennsylvania Orthop. Ass. 1968, Germaneau et al. 1980, McFarlane 1935); and in only about 1 out of 10, the dislocation is anterior (Freeman 1961, Piggot 1961, Schlonsky & Miller 1973). I report a case of open anterior dislocation of the hip in a child that to my knowledge has never been described before.

Case report

A 6-year-old boy was brought to the emergency room of the Central Hospital of Mapute, Mozambique, 20 minutes after having been run over by a bus; one of the wheels was seen to pass over the boy's left thigh.

The left femoral head protruded through the inguinal area (Figure 1). The left hip was flexed, abducted, and externally rotated. There was also a longitudinal fracture of the right leg. The boy was in shock but the distal pulses were clearly felt. There was no nerve injury. At operation, it was noted that the head of the femur had lacerated the left hemiscrotum, sparing the interscrotal septum and the right hemiscrotum. The left testicle was missing. After surgical cleansing of the head of the femur and of the bruised tissues around the hemiscrotum, the hip was reduced. After reduction the joint was unstable, probably because of

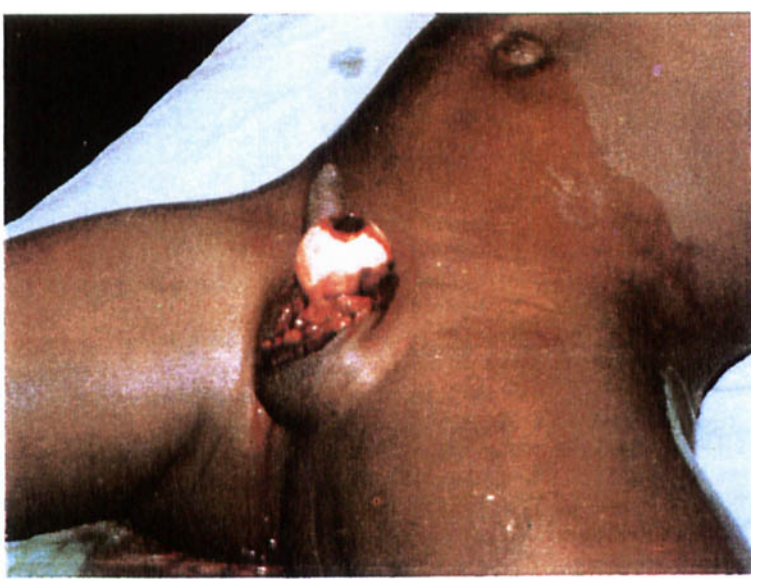

Figure 1. Six-year-old boy with the head of the left femur protruding through the inguinal area and involving the scrotum.

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extensive rupture of the adductor muscles. A cutaneous plasty of the scrotal area was carried out and two drainage tubes were inserted. A simple plaster hip spica was applied that included the right leg to stabilize the tibial fracture. The left leg was kept in abduction and internal rotation.

Antibiotic treatment was started the next day with Bactrim® (co-trimoxazole). The patient was febrile with a temperature of 38°–39° C for the first 4 days. On the fifth day, there was seropurulent discharge from the wound. *Staphylococcus aureus*, which was coagulase-negative and sensitive to Bactrim, was cultured from the fluid. The same antibiotic regimen was continued, as were the daily dressings. Three weeks after injury, the wound closed spontaneously.

The child was kept in the hip spica for 4 months. Radiographs after removal of the spica revealed necrosis of the femoral head, which could be either of ischemic or septic origin.

The patient was then treated with a Thomas splint and was not allowed to be weight bearing for 1 year. His last radiograph, taken 18 months after the injury, also showed involvement of the acetabulum (Figure 2). At this stage the patient complained of some pain. He could walk and run with a limp, and clinical examination revealed a limitation of movement: flexion, 0°–80°; abduction-adduction, 20°–0°; external and internal rotation, 25°–0°–10°.

Figure 2. Radiograph 18 months after injury. Necrosis of the femoral head with changes of the acetabulum.

Discussion

The mechanism of this injury was presumably the same as described by Niloff and Petrie (1950) and Litton and Workman (1958): high-energy trauma to the limb forcing the femur into extreme external rotation while it was in abduction. The treatment was immediate, but due to either the severity of the injury (Banks 1941, Haliburton et al. 1961, Scholder-Dumur 1959) or the subsequent infection, necrosis of the head of the femur resulted.

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