We present the case of a young male patient with inferior dislocation of the hip and postulate a possible mechanism for this extremely rare injury.

Case report

A 37-year-old male was playing rugby league when he passed the ball out of a maul to his left. As he did so, his right foot stuck in the mud and simultaneously he was tackled from behind. This resulted in a violent twisting force to his pelvis and flexed hip. He collapsed and immediately felt a lump in his right buttock. There was pain in his right groin and his right hip was fixed at 90° of flexion, with rotation and extension impossible. Approximately five minutes later, he started to feel pins and needles in his right foot, and he gradually developed numbness in the entire right leg.

He was attended by paramedics around 20 minutes after the accident. He was given morphine and Entonox but attempts to straighten his leg were unsuccessful. On arrival in hospital, he was given further analgesia and an inferior dislocation of the hip was confirmed on radiographs (Fig. 1). Intravenous midazolam was administered and the dislocation reduced using gentle traction and extension.

He described a similar episode four years earlier, again playing rugby. On that occasion the hip reduced without difficulty. Three days later, he had a CT scan which revealed no fracture or other pathology. Within six weeks he had returned to training and experienced no further problems until the current episode. On this occasion, no further imaging was performed after reduction and he was discharged for follow-up at his local orthopaedic unit. Follow-up was by telephone and one year after the injury he was active but not participating in sport.

Discussion

We suggest the mechanism of this type of injury may be as follows. With the hip and knee flexed, uncontrolled pressure on the lateral aspect of the leg may have caused the fibres of the extra-capsular ligaments to unwind and thereby allow the femoral head to push through the gap between the ischiofemoral and pubofemoral ligaments. With the iliofemoral ligament acting as a hinge, the head of the femur dislocated below the joint. The ligamentum teres is likely to have ruptured on the previous occasion and therefore offered no help with stability.

The supporting clinical evidence of radiographs to confirm this as the rare ischial variety of inferior hip dislocation were presented by Brogdon and Woolridge.3

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

References