Bilateral recurrent atraumatic dislocation of the hip joints—a case report

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A 54-year-old woman was admitted to our department with a dislocation of the left hip after she twisted her left leg when she tripped (Figure 1). Under a general anaesthetic, she underwent closed reduction and examination—there was no demonstrable laxity in any direction and no general joint laxity. Postoperatively, she was mobilised immediately following an overnight stay in the hospital. She had a past medical history of brittle asthma since childhood for which she had been on long-term steroids. There was no history of trauma, congenital abnormality or family history of collagen disorders; her birth had been normal. She gave a history of recurrent bilateral hip dislocation over a 13-year period. The first dislocation of her right hip occurred after a simple fall on her back; treatment consisted of traction of her affected leg for a period of 4 weeks. 2 years later she dislocated the left hip for the first time, again after a minor fall. She was then treated with traction for 2 weeks. Further dislocations of both hips occurred then, following rather minor trauma like twisting of the leg or minor falls. On some occasions she had been able to reduce the dislocated joint on her own, but often she required manipulation under an anaesthetic. She had never been able to dislocate her hips voluntarily. Another institution had offered her surgical treatment, but she had declined.

MRI showed normal bony anatomy of the left hip joint and widening of the joint space on the right side with the ligamentum teres being visible (Figure 2). While awaiting CT arthrography, she suffered a further right-sided hip dislocation of possibly 6 weeks' duration—she had been out of the country on holiday. Plain radiographs confirmed the dislocation along with erosion of part of the femoral head. She underwent CT arthrography which showed subluxation of her right hip with erosion of the femoral head and no capsular defect (Figure 3). At open reduction via an anterior approach, we found an anterior dislocation with flattening of the femoral head and the ligamentum teres lying in the acetabulum. The interposed soft tissues were removed, the hip was reduced and the capsule plicated. Her hip was then found to be stable. Initial treatment was bed rest with an abduction pillow but on the third day, her hip dislocated again when the patient used the bed pan.

Figure 1. Posterior dislocation of the left hip.

We viewed the further management of this patient as a considerable challenge. The patient was now wheelchair-bound and could only

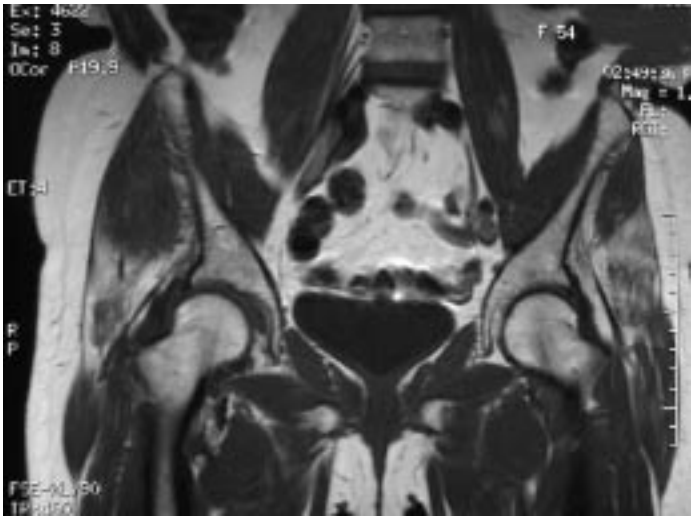

Figure 2. MRI showing the ligamentum teres in the acetabulum and widening of the joint space of the right hip.

walk a few steps on crutches. Despite her subluxed hip, she felt only very little pain. Several types of treatment were discussed and affected by various factors.

After open reduction and soft tissue repair had failed, we felt that further surgery should be offered to the patient, to allow better mobility. The choice of conversion to a Girdlestone resection arthroplasty, total hip replacement or another attempt at open reduction and soft tissue balancing were discussed. The latter was found to be unsuitable, since a previous attempt had failed and the femoral head already showed signs of significant erosion. While resection arthroplasty prevents further dislocations, including perhaps the need for repeated surgical intervention, it leaves the patient with a short weak leg and it is therefore not the first choice of treatment in a fairly young patient with a previously high degree of mobility. The patient rejected the proposed resection arthroplasty, as her mobility would be too restricted. Considering that she had no pain, prevention of further dislocations and improved mobility would have been the indications for undergoing joint replacement. To evaluate this possibility, the patient was sent to a specialist centre for a second opinion. The overall impression was that stopping the dislocations would be a poor indication for a hip replacement as there would be a high risk of further dislocations.

The treating surgeons and the patient have been aware, that the other hip would probably become similarly unstable later on. She was therefore kept under regular review, until she died as a result of a severe asthma attack.

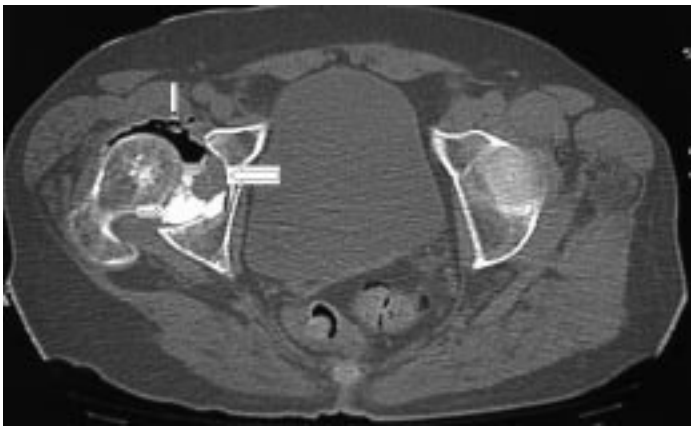

Figure 3. CT double-contrast arthrography showing subluxation of the right femoral head, the ligamentum teres curled up in the acetabulum and no capsular defect. Black arrow: Air in the ileo-pectineal pouch. Large white arrow: Ligamentum teres. Small white arrow: Contrast medium in the posterior capsule

Discussion

Dislocation of the hip without preceding trauma in an adult is a very rare condition. A few paediatric cases have been published, but to our knowledge there have been only 2 previous case reports involving unilateral dislocations in adults (Sullivan et al. 1955, Provenzano et al. 1987).

We describe the first case of bilateral atraumatic dislocations of the hip joints. Our patient had a late onset of recurrent bilateral atraumatic dislocations of the hip joints. Both previously reported patients with recurrent dislocation of the hip had defects in the posterior

capsule. We found no similar defect in our patient. However, the capsule showed overall laxity. This suggests that weakness of the joint capsule and the surrounding ligaments contributed to the instability of the joint. It is difficult to say whether the long-term use of oral steroids contributed to the capsular laxity and joint instability in our patient.

Provenzano M P, Holmes P F, Tullos H S. Atraumatic recurrent dislocation of the hip. A case report. J Bone Joint Surg (Am) 1987; 69 (6): 938-40.

Sullivan C R, Bickel W H, Lipscomb P R. Recurrent dislocation of the hip. J Bone Joint Surg (Am) 1955; 37 (6): 1266-70.