

Voluntary dislocation of a total hip arthroplasty with a constrained acetabular component—a case report

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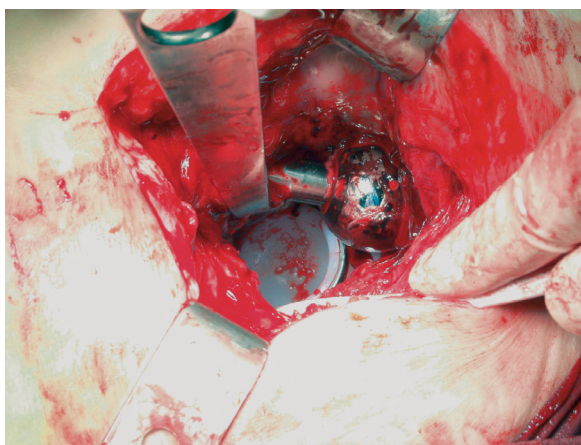
A 66-year old man was operated on with a total hip arthroplasty (THA) on his right side in 1992 due to arthrosis. He was revised several times because of recurrent dislocations and infection. The components were finally removed (Girdlestone) in 1993, and this was followed by further infections and revisions up to 1997. In 1991, he sustained a neck fracture on the left side and had a hemiarthroplasty performed, which was converted to a THA in 1993 due to loosening caused by a fracture. The immediate postoperative course was uneventful, and radiographs showed well-orientated components.

The patient then dislocated the left hip in November 1999 due to a fall. In the following 3 years until November 2002, the hip dislocated 41 times—supposedly by minor trauma such as leaning forward in a chair, getting out of bed or a car, or by pushing a wheel chair. Each time, the patient insisted on morphine and general anesthesia. Closed reduction was performed, and the hip was found to be stable

afterwards. Reoperation was offered several times, but the patient declined.

The patient kept strict records of his dislocations, which often took place during weekends and holidays. In late 2002, after 41 dislocations, the patient was finally persuaded to agree to being operated on in order to stabilize the hip. The acetabular component was revised to a constrained liner (Biomet, Warsaw, Indiana, USA), and a 32-mm head with a +6-mm neck was used. Control radiographs showed well-orientated components, and the immediate postoperative course was uneventful.

In March 2003, the patient dislocated the constrained hip. The constrained liner ring remained in place and was found to be intact upon surgery. The patient initially claimed that “just leaning forward” had caused the dislocation, but he later told the anesthetist “they said I could not dislocate it again, but I showed them it could be done”. Confronted with his statement, he admitted that he had



The dislocated hip with the constrained liner ring still correctly in place.

wedged his left foot between the bedpost railings and pulled himself in the opposite direction with his arms—thus applying longitudinal force—until his hip “snapped” in order to dislocate his left hip voluntarily. He explained that he needed the attention and expected to get morphine.

The acetabular shell and liner was revised and a new constrained liner was inserted. The patient was now told that this was the final attempt to stabilize his hip and that further dislocations would lead to removal of the components, and that a Girdlestone would replace his left hip as well. The patient threatened to commit suicide if a Girdlestone was performed, but agreed on psychiatric evaluation, which he had declined earlier. The psychiatric evaluation revealed signs of personality abnormalities with periodic paranoid alertness, but the patient declined further evaluation and treatment.

After more than a year after the final operation, the patient is walking with crutches and has not dislocated again.

Discussion

Prior to the already described problems from the left hip, the patient’s right hip had dislocated approximately 25 times in just 1 year. Less than a year after the right hip was revised to a Girdlestone, the left hip then began to dislocate. The patient had a prior history of alcohol abuse, many family problems, and was exaggeratedly focused

on his illnesses. Perhaps we should have suspected that the patient had dislocated his hips voluntarily every time in order to get attention and morphine. To our knowledge, this behaviour has not been reported before.

We could not foresee that he would take it as a challenge when told that the constrained liner could not dislocate. It must have taken a substantial amount of force to dislocate it. As seen in Figures 1 and 2, the head was dislocated through a still correctly placed liner ring, a finding that has been described earlier (Anderson et al. 1994, Cooke et al. 2003). For an SROM (Sihvash range of motion), the pull-out and lever-out is 300 lbs and 150 lbs, respectively (Anderson et al. 1994). It is a wonder that the bedpost could withstand such force.

We still find that a constrained acetabular liner should be used in selected cases with high-risk factors or proven recurrent dislocations. We do, however, recommend evaluation of the patient’s psychological status and possible history of drug abuse in cases of recurrent dislocation where the hip is stable after reduction.

Anderson M J, Murray W R, Skinner H B. Constrained acetabular components. *J Arthroplasty* 1994; 9: 17-23.

Cooke C C, Hozack W, Lavernia C, Sharkey P, Shastri S, Rothman R H. Early failure mechanisms of constrained tripolar acetabular sockets used in revision total hip arthroplasty. *J Arthroplasty* 2003; 18: 827-33.