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## DISLOCATION OF A TOTAL HIP PROSTHESIS OF THE CHRISTIANSEN TYPE

### *A Case Report*

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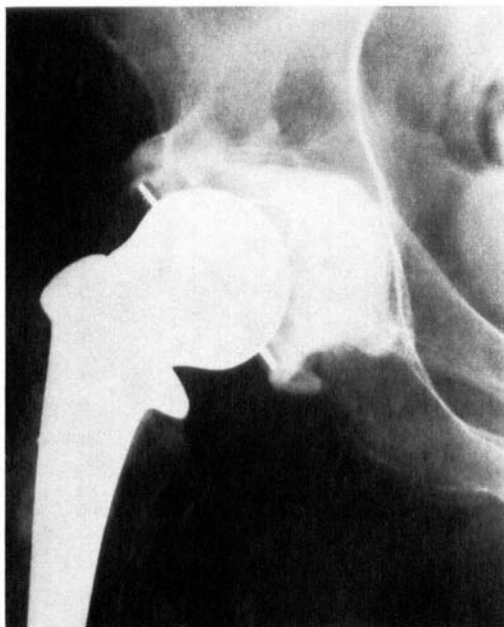
The trunnion-bearing hip prosthesis was devised by Christiansen (1969), and Ramstad (1969) reported good results after two years of practical experience with this prosthesis. A similar prosthesis was also designed by Weber (1970). An advantageous feature of this type of prosthesis is that, after insertion of the acetabular and femoral components, optimal lightness of reduction may be obtained by the use of interchangeable lengths of the head and neck component. This feature may be useful during hip replacement in patients with long standing contractures of the hip.

### CASE REPORT

A 60-year-old housewife developed avascular necrosis of the femoral head two years after a medial fracture of the neck of the left femur. In 1967 a fixed adduction deformity of 30° was found and treated by an adductor tenotomy. The patient remained relatively symptom free during the following five years. In 1972 she developed increasing pain. Examination of the hip revealed fixed adduction and flexion deformities of approximately 30°. Prosthetic replacement of the hip was therefore advised. The patient gave a history of angina pectoris but had a normal electrocardiogram.

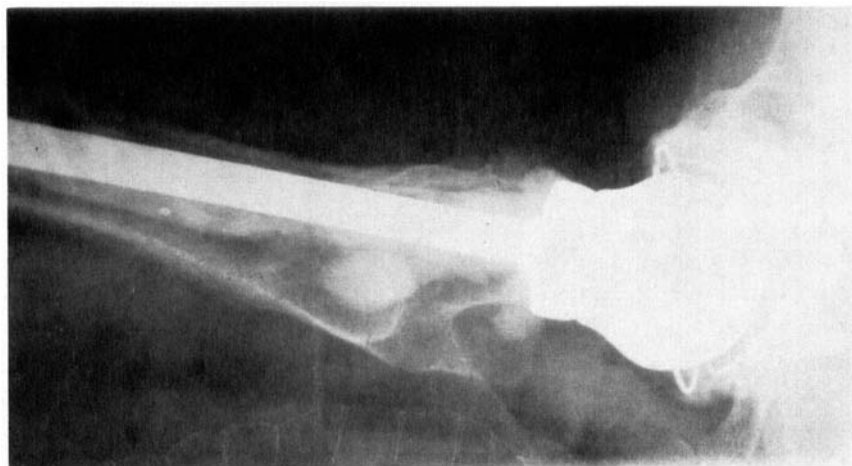
Prosthetic replacement of the left hip was performed by a senior resident through a posterior approach, as routinely used in this department. The Christiansen type of prosthesis was chosen because of the long standing contractures of the hip. The operation was performed without any technical difficulties and resulted in a full range of hip movement. Post-operative radiographs showed a good position of the prosthesis (Figures 1 and 2). The patient was mobilized post-operatively by standing out of bed on the second day after operation and walking without weight-bearing on the fourth day. There was an ordinary range of movement in the hip and normal subjective complaints during mobilization.

Six days after the operation the patient was found to have a shortening of the



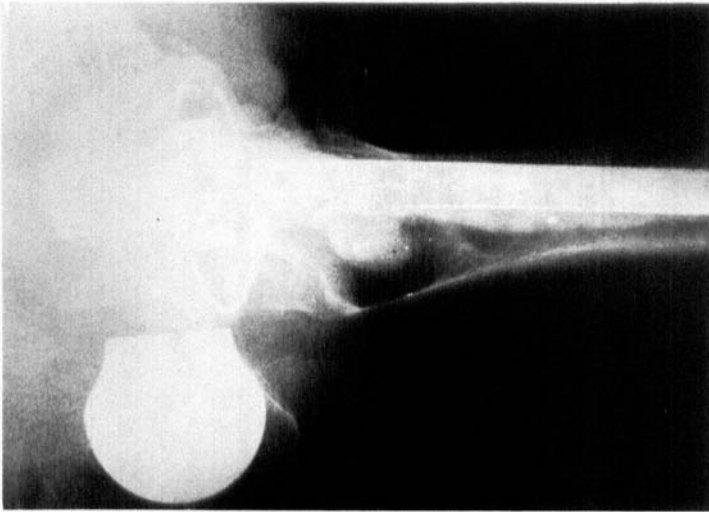
*Figure 1.*

*Figures 1 and 2. The prosthesis after the initial operation shows a normal position.*



*Figure 2.*

left leg with impaired movement of the hip. Radiographs revealed dislocation of the prosthesis (Figure 3). This dislocation had probably occurred during the previous night, when the patient had experienced some chest pain and rapidly turned into her right side in an attempt to sit up. Her exact movements could not be elucidated retrospectively, but there was probably sudden flexion and adduction of the left hip. She felt that "something happened" in the hip, but was too pre-



*Figure 3. After luxation the head component of the prosthesis is dislocated dorsally.*

occupied by her heart to mention this to nursing staff during the night. After three weeks an open reduction of the hip was performed and the head component of the prosthesis was reinserted on the stem. No surgical reason for the luxation could be found. The delay in this operation was due to a myocardial infarction.

#### COMMENTS

Ramstad (1969) mentioned one dislocation of a Christiansen prosthesis, but no details of the type of dislocation were given. Dislocation of the femoral head in relation to the stem is a serious complication, as reduction by conservative means is impossible and a further operation has to be performed. This is, in our opinion, a clear disadvantage of this type of prosthesis and should be taken into account when choosing the type of prosthesis for hip replacement.

#### SUMMARY

Luxation of a trunnion-bearing type of hip prosthesis (Christiansen model) with dislocation of the head in relation to the stem of the prosthesis is described. Reposition by conservative means is impossible and open reduction is the only feasible treatment.

## REFERENCES

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