

COMBINED JUDET ARTHROPLASTY AND INTER- TROCHANTERIC OSTEOSYNTHESIS

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In June 1952 a man aged 61 years reported at the Orthopaedic Hospital, Copenhagen complaining of extreme pain in the left hip joint. The patient had suffered from bilateral hypertrophic hip osteoarthritis for many years, he was rather adipose and demonstrated advanced clinical and ECG signs of myocardial degeneration. In 1937 a resection of the right obturator nerve was performed, followed in 1938 by drilling of the neck and head of the right femur. His condition was improved temporarily but gradually deteriorated and in 1947 a vitallium cup prosthesis was inserted on the right side. The result to date has been satisfactory.

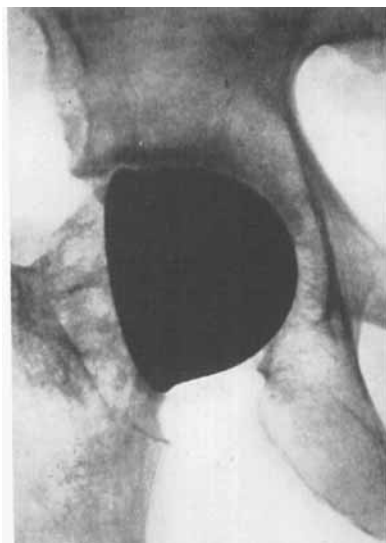
When he was examined in June 1952, it was decided to admit the patient for investigation and treatment because of severe pain in his left hip joint.

Unfortunately, just before he was admitted, he fell downstairs and sustained an intertrochanteric fracture of the left femur (Fig. 1).

The following methods of treatment were considered:

- 1) General conservative treatment of the fracture by immobilisation in bed, followed by arthroplasty.
- 2) Intertrochanteric osteosynthesis using McLaughlin's appliance or other similar devices, again followed by arthroplasty.
- 3) A combined Judet arthroplasty and osteosynthesis of the fracture using lag screws.

The first two methods would unduly prolong the treatment and impose too much strain upon the patient. After further consideration of the third method it was decided that the surgery might be simplified if a Judet arthroplasty with combined fixation of the fracture



Right.
A vitallium cup inserted five
years ago.

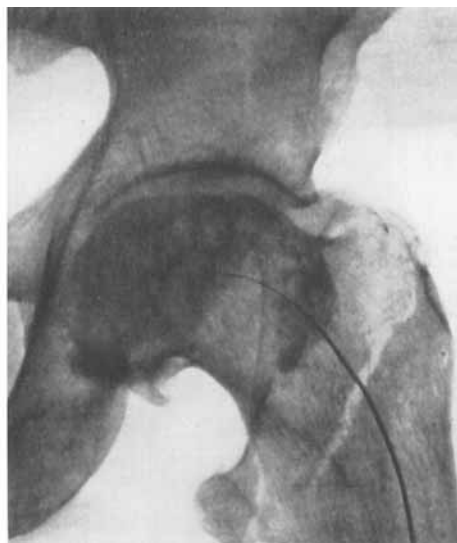


Fig. 1.

Left.
Intertrochanteric fracture and
hypertrophic osteoarthritis.

were carried out using only the stem of the Judet prosthesis to fix the intertrochanteric fracture.

This procedure was carried out a few days after admission, and presented no difficulties. During the operation it was found that the fracture was complete the upper part being free, and moreover that there was a longitudinal fracture in the shaft of the femur, neither of these facts being evident from the X-Ray. After disarticulation and removal of the head of the femur the upper end of the neck was trimmed and adapted for a normal 45/80 Judet prosthesis, without shaft. The stem was driven through the guide hole and cemented in place. It penetrated the lateral cortex of the femur in front of the longitudinal fracture. Small chips of bone from the head of the femur were packed in between the irregular boney edges of the intertrochanteric fracture before this fracture was impacted.

The postoperative period was uneventful. Active controlled muscular movements of the left hip joint, and whole limb, were started after 16 days. X-Ray examination (Fig. 2) 4 weeks later showed that the callus formation was sufficient to allow the patient to sit in a chair in the ordinary manner, whilst after a further 10 days full weight bearing and walking exercises were commenced. Within two

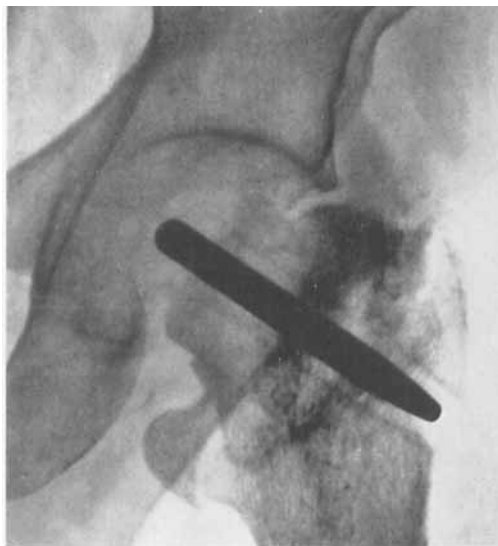


Fig. 2.

Left.—Four weeks after combined Judet arthroplasty and intertrochanteric osteosynthesis. Fracture healed.

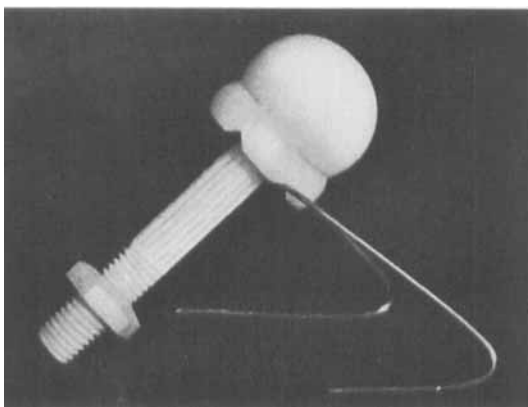


Fig. 3.

Nylon prosthesis with locking nut for reduction of intertrochanteric fractures in cases of hypertrophic hip osteoarthritis.

months he was walking with the aid of elbow crutches and one week later he started bicycle training exercises.

10 weeks after operation his painful symptoms had disappeared, he was able to dress himself and he could fully flex and extend his leg at the hip, he could abduct up to 15° , adduct to 20° , rotate inwards 15° and outwards 20° .

He was discharged from hospital and continued with his rehabilitation as an outpatient. He had recovered sufficiently in 6 months, he could walk without a stick, drive a car and resume his work as a traveller.

In this case treatment along orthodox lines would have been prolonged, possibly necessitating two operations and a long period in bed.

The case is by no means uncommon and the patient is reported to have made a plea that similar cases may be treated by the same method. Cases are often seen with an intertrochanteric fracture accompanied by severely painful hypertrophic osteoarthritis of the hip. In these the indications would favour a Judet arthroplasty, whereas if the pain is not severe an osteosynthesis should be performed from below by one of the accepted methods.

The special prosthesis shown in Fig. 3 was made in the hospital workshop. The whole appliance, including the locking nut, is made of nylon. Mechanically it should make possible an easier and safer reduction of the fracture and probably reduce any tendency to breakdown of the callus formation during early postoperative mobilisation of the patient.

Postscript: 1½ year after the operation the patient was seen and there have been no complaints.

SUMMARY

The case report of a patient with severely painful hypertrophic hip osteoarthritis who sustained an intertrochanteric fracture. Surgery was simplified to one operation. A Judet arthroplasty was carried out and the stem of the Judet prosthesis was proved to fix the intertrochanteric fracture completely. The fracture healed in 4 weeks and full weight bearing was allowed 2 weeks later.

RESUME

Compte-rendu du cas d'un malade souffrant d'une très douloureuse ostéoarthrite dans une hanche hypertrophique qui a provoqué une fracture intertrochantérienne.

L'intervention chirurgicale a été simplifiée et n'a comporté qu'une seule opération. Une arthroplastie Judet a été pratiquée et l'on a pu constater que la tige de la prothèse Judet fixait entièrement la fracture intertrochantérienne. La fracture s'est guérie en 4 semaines et l'on a pu permettre la charge complète deux semaines plus tard.

ZUSAMMENFASSUNG

Es wird über einen Patienten mit äusserst schmerzvoller Arthrose der Hüfte, der eine intertrochanterische Fraktur erlitt, berichtet. Die chirurgische Behandlung wurde zu einem einzigen Eingriff vereinfacht. Es wurde nämlich eine Judet-Arthroplastik ausgeführt und es erwies sich, dass der Stiel der Judet-Prothese die fractura intertrochanterica vollkommen fixierte. Der Bruch heilte innerhalb von 4 Wochen und volle Belastung konnte 2 Wochen später erlaubt werden.