OPERATIVE TREATMENT IN CERTAIN FORMS OF LATERAL COLLUM FEMORIS FRACTURES

BY

SVEN JOHANSSON

By lateral fractures of the neck of the femur I understand, in accord with the most usual terminology, intertrochanteric—cervico-trochanteric—and pertrochanteric fractures. In most instances these heal rather easily, irrespective of whether extension treatment or plaster is used. The fixation period will, *as a rule,* be from two to three months, though in certain cases considerably longer time may be required. For many patients, however, even two or three months' confinement to bed, in plaster bandage or under traction, may be quite a serious matter, and to this comes the muscular atrophy and the restriction in mobility of the knee joint, which set in—or are liable to set in, at least—in these cases, and which necessitates further period of physical after-treatment. If it is possible, without increased risk for the patient, to eliminate those inconveniences, and to shorten the period of his confinement to bed, it seems to me entirely justified to do so.

Acting from those considerations I have therefore in some cases of *intertrochanteric fracture* employed the method of extra-articular osteosynthesis by means of Smith-Petersen's nail and using the same technic as proposed and employed by me for medial collum fractures.[1]) The three cases I have so far dealt with in this manner are as follows:

Case I.—Journal no. 181/33. Female, aged 64 years. Admitted Jan. 16th, 1933, discharged March 6th, 1933. On the first named date she had fallen on the floor, was unable to rise, and was admitted immediately. *Condition on admission:* Patient is diabetic. Left foot rotated outwards. Attempt to raise her

[1]) See *Acta Orthopædica,* vol. III, p. 362.

leg causes severe pain. Roentgen examination shows lateral, intertrochanteric, fracture without dislocation.

Jan. 17th. *Operation* (author): Extra-articular osteosynthesis by own method. Guiding-wire became bent, and could not be removed after the nail had been introduced.

Jan. 25th. Guiding-wire (which roentgenogram had shown to have penetrated into the articulation) removed.

Feb. 9th. Patient easily raises her leg from the mattress. *Is allowed to get dressed.*

March 6th. Patient discharged. Normal mobility of the leg restored, and she walks as before her accident.

Fig. 1 shows the fracture as it appeared on May 30th.

Case II.—Journal no. 705/33. Female, aged 62 years. Admitted March 3rd, 1933, discharged April 24th, same year. On Feb. 23rd she had fallen and hurt the right side of her hip, and had been unable to rise, or to use her leg afterwards. *On admission:* General condition nothing to remark. Patient can move the leg a little; there is no irregularity of position. Roentgen examination shows intertrochanteric fracture with some dislocation (Fig. 2).

March 4th. *Operation* (author): Extra-articular osteosynthesis by own method.

March 22nd. Patient moves her leg freely.—April 4th. Is allowed to get dressed.—April 6th. Walks in a go-cart.—April 19th. Walks without a stick. Mobility normal.—April 24th. Discharged.

Fig. 3 shows the fracture as it appeared on Apr. 21st, 1933.

Case III.—Journal no. 739/33. Female, aged 64 years. Admitted March 6th, 1933, discharged May 6th, same year. On the first named date she had slipped on the floor and hurt her right hip. Was unable to move her leg, and was taken to hospital immediately. *On admission:* General condition nothing to remark. Right leg strongly rotated outwards; no shortening; leg cannot be raised. *Roentgen examination* shows intertrochanteric fracture with marked diastasis, but no considerable dislocation (Fig. 4).

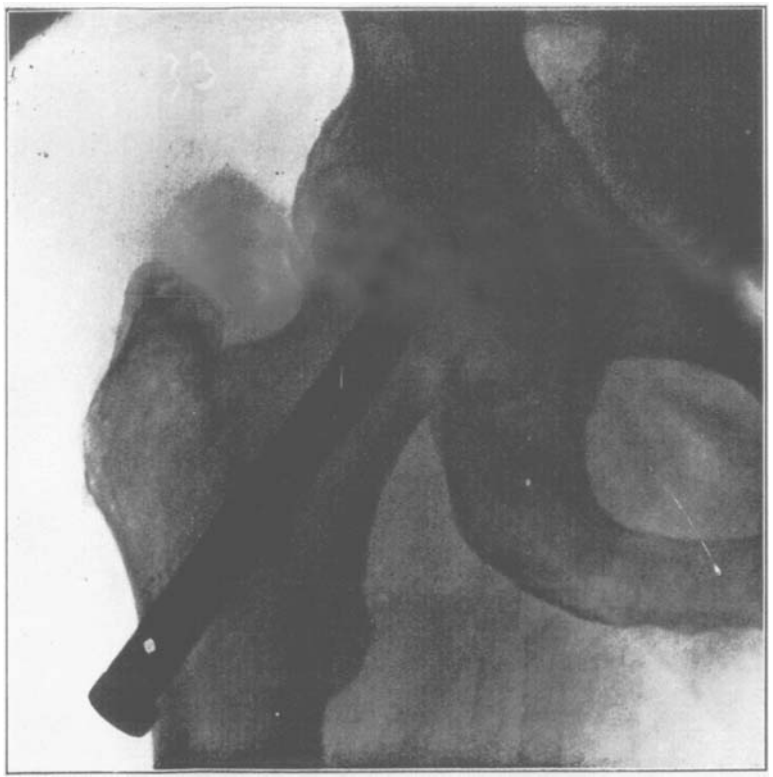

Fig. 1. Case 1. Female, 64 years old, 4½ months after the operation.

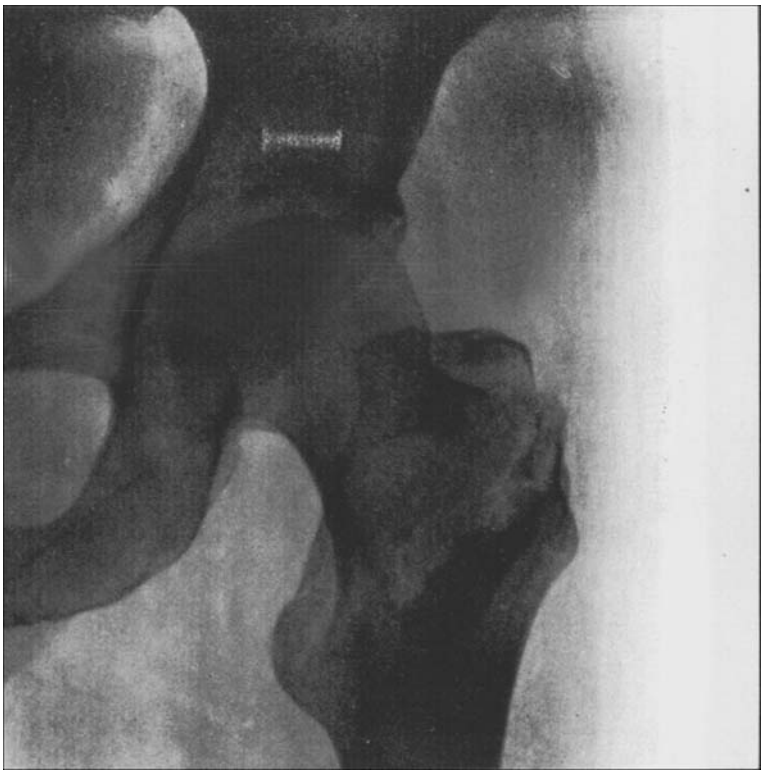

Fig. 2. Case 2. When received at the hospital.

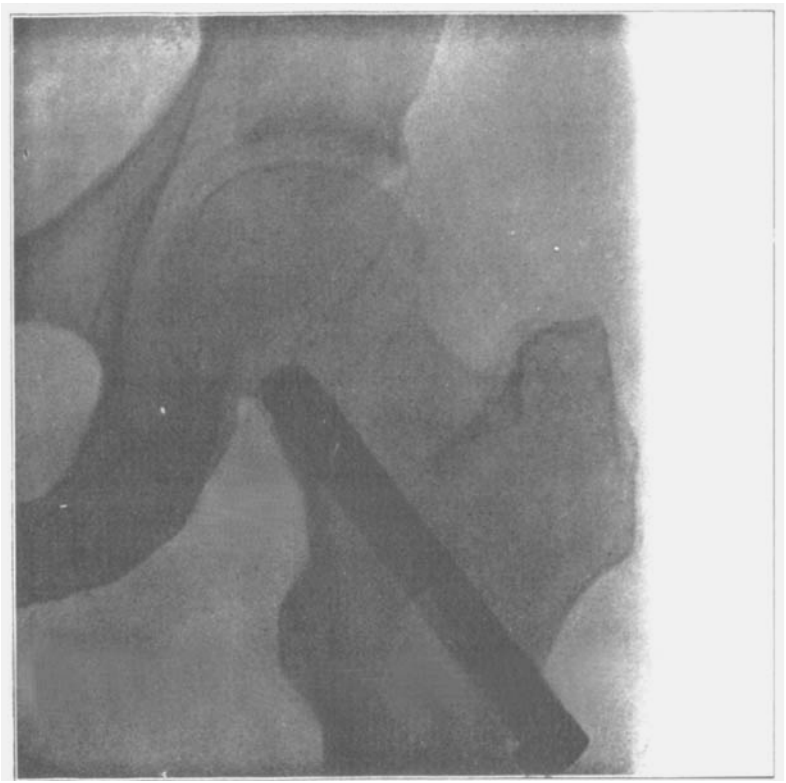

Fig. 3. Case 2. 7 weeks after the operation.

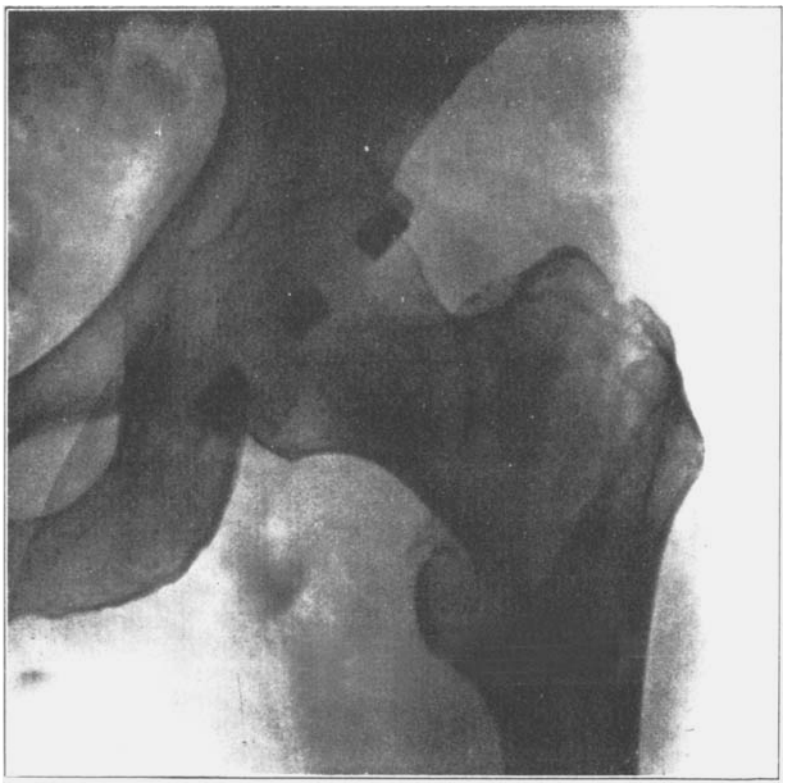

Fig. 4. Case 3. Female, 64 years old. By admittance.

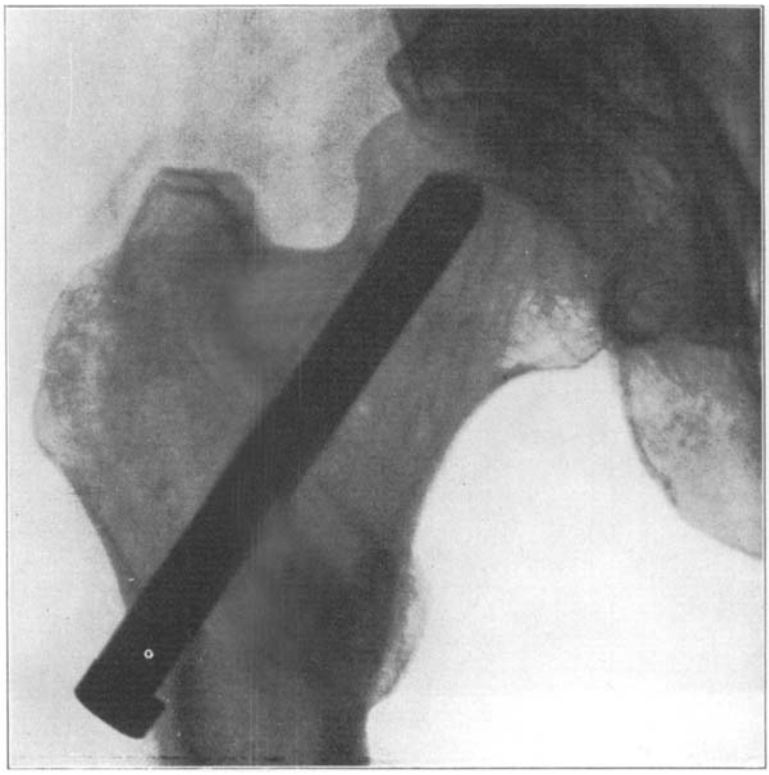

Fig. 5. Case 3. 3½ month after operation.

March 7th. Operation (author): Spinal anesthesia. Extra-articular osteosynthesis by own method.

March 10th. Patient can already raise her leg.

March 28. Thrombosis of right leg.

April 13th. No longer any tumefaction. Patient allowed to sit up.

April 25th. Go-cart.

May 6th. Patient discharged. She walks well without a stick; there is no limp; the mobility is normal.

Fig. 5 shows the fracture as it appeared on 21/6, 1933.

As it will be seen from these case records, the period during which the patients were confined to bed varied from 23 to 37 days (mean average, 30 days), and they were able to leave the hospital—with practically normal mobility restored, and able to walk as usual—after from 49 to 61 days (mean average, 54).

The technic in these cases is, of course, considerably simpler than in cases of medial fracture, because in these intertrochanteric cases it is not necessary to carry the nail in through the narrowest part of the collum. The nail used in these cases is therefore also considerably shorter. That it does not in any way interfere with the osseous healing is not only shown by the result in the cases described above, but is further proved by after-examination of a number of cases of medial fracture observed for a considerable length of time.[1]) *I therefore feel that I may recommend operative treatment, in the form of extra-articular osteosynthesis, also for intertrochanteric fractures of the neck of the femur.*

SUMMARY

The author has treated 3 cases of intertrochanteric fracture of the neck of the femur by the method of extra-articular osteosynthesis. The patients were able to leave the hospital after, on the average, 54 days, with their ability to walk restored practically to normal.

RÉSUMÉ

L auteur a traité trois cas de fracture intretrochantérienne du col du fémur par la méthode de l'ostéo-synthèse extra-articulaire qu'il a indiquée et déjà appliquée au traitement des fractures médiales du collum. Les malades purent quitter l'hôpital, en moyenne après 54 jours et ils étaient alors en état de marcher pour ainsi dire normalement.

ZUSAMMENFASSUNG

Der Verfasser hat 3 Fälle von intertrochanterischem Bruch des Schenkelhalses nach der von ihm angegebenen und bereits mehrfach angewandten Methode extraartikulärer Osteosynthesis bei medialen Schenkelhalsfrakturen behandelt. Die Patienten erlangten durchschnittlich nach Verlauf von 54 Tagen praktisch genommen ihren normalen Gang wieder, so dass sie aus dem Hospital entlassen werden konnten.

[1]) See the preceding paper.