Nowadays, fracture of the neck of femur is one of the risks of old age, especially for elderly women. It is a major public health problem in many Western countries and an increasing challenge in the developing world. The number of hip fractures around the world is projected to rise from 1.6 million in 1990 to 6.26 million by the middle of the next century [1]. These fractures are at least in part avoidable by preventing and treating osteoporosis and by preventing falls [2, 3].

In the developed countries, when an unfortunate elder does fall and suffer a broken hip, she is usually operated on as soon as possible. With optimum pre- and post-operative care and careful attention to the principles of geriatric rehabilitation, many of those who lived at home before the fracture will return to their pre-operative lifestyle and functional level.

This approach has not always been the case. Documentation of this can be found in the pages of the British Medical Journal from the 1930s. At that time, general anaesthesia, aseptic surgical technique and the principles of post-operative rehabilitation were already well known, after the medical experience of the massive numbers of trauma victims of the First World War. However, elderly hip fracture patients did not routinely undergo surgery.

In a letter entitled “Fracture of femur in a woman of 80” [4], the surgeon W. B. R. Monteith wrote:

“This case seems to warrant recording because of the age of the patient at the time of the accident, and the satisfactory anatomical and functional state that has resulted after treatment. In July, 1931, the patient, a woman of 80, fell heavily on a hard floor, and when I saw her within two hours of the accident it was obvious that there was a fracture of the right femur in the neighbourhood of the neck. She was moved carefully to bed in an adjoining room."

In a definite improvement over today’s orthopaedic and geriatric practice,

“An x-ray photograph was taken in her own bed the following morning by means of a Philips portable x-ray apparatus, and a paratrochanteric fracture of the right femur was demonstrated. A Thomas splint was applied to give temporary extension during transit, and the patient was removed with extreme care to the Butterfield Cottage Hospital, Bourne.”

The surgeon goes on to describe the conservative therapy of the day, before the age of nails and joint prostheses.

“Oh the following day a general anaesthetic was given, and the limb was fully abducted, extended—that is, protracted, while the foot was internally rotated—and a plaster-of-Paris spica applied. After four days had elapsed and on each day during her stay in the hospital she was lifted from bed and placed in an upright position as possible on a reclining chair. She was sent home ten days after admission to hospital.

After three weeks from the time of the accident, the ankle was liberated and movements encouraged, and after a further three weeks the knee was liberated and again movements instituted. Three months from the date of the accident the patient was allowed to bear weight on the affected limb, and to walk as best she could, wearing the plaster case [sic]. In the week before Christmas the plaster cast was entirely removed, this being five months from the time of fracture. She was then able to move about almost unaided. There was now no disability, and the patient speaks of the right leg as being her ‘best leg’.”

Monteith goes on to comment as to why he feels his ‘unusual’ patient did so well and his thoughts are not out of tune with our philosophy towards geriatric surgery and rehabilitation today.

“It seems to me that several factors contributed towards the successful result: first, knowledge of the exact lesion, from the x-ray photograph taken in the patient’s own bed without disturbance before removing her to hospital; secondly, making the period of recumbency as short as possible, which was done because of the patient’s age and subsequent liability to pulmonary complications; and thirdly, the early weight-bearing which would have appeared to justify the risk taken in allowing it.”

In another account of the treatment of elderly patients with hip fracture, Irwin reviewed 33 consecutive cases [5]. Despite the author’s claims that “…no patient has been refused by me on the score of age alone”, almost all his patients were under 80 years old. His description of those older patients on whom he did operate is chilling: “Several patients, in addition to
being elderly, had already had the fracture for months, while one who was refused had had it for a year”.

Another series, describing a new method of inserting the Smith–Peterson pin in 16 patients, had no patients over 80 and most were in their forties and fifties [6].

Returning to Monteith’s case, what makes his letter so interesting is the author’s conclusion. Despite the obvious success at operating on and rehabilitating an independent, healthy old lady (something that is today the bread and butter of orthopaedics and geriatric practice) the author concludes,

“it seems hardly necessary to mention that the treatment outlined above is in no way suggested as suitable for any sort of routine treatment.”

References