

Total Hip replacement

Indications And Early Results In Zambia

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SUMMARY

The indications of total hip replacement are discussed. Some cases were presented where the procedure was performed; these included cases of degenerative arthritis as well as selected cases of old healed infective arthritis. It is evident that total hip replacement has a definite place in the surgical treatment of the advanced stages of degenerative arthritis, and possibly in some selected cases of old healed infective arthritis.

INTRODUCTION

The history of total replacement of the hip, the indications for this operation, the complications and the generally excellent results have recently been reviewed (British Medical Journal 1972). The procedure involves excision of the head and neck of the femur and grouting of the acetabulum and replacing these components by prosthesis.

In England, where total replacement of the hip was pioneered (Charnly, 1972; McKee and Watson Farrar, 1966), the procedure is limited to patients over the age of 50 suffering from degenerative or rheumatoid arthritis and to some with neglected congenital disorders of the hip. In Zambia and other African countries, degenerative arthritis of the hip is relatively infrequent, and in my experience at Ndola the few cases seen are usually secondary to old injuries. At this hospital osteoarthritis accounts for 8% of hip disorders, tuberculosis 33%, pyogenic infection 42% and 17% are miscellaneous. Arthro-

desis has proved reasonably satisfactory for hip disease, especially in young adults doing manual labour. However, in many patients with long-standing infective arthritis with deformity and limb shortening there is often osteoarthritis in the other hip. It was with elderly patients not doing heavy work that total replacement of the hip, using the McKee-Farrar prosthesis, was contemplated in early 1972.

CASE REPORTS

Case 1 (Figure 1, 2)

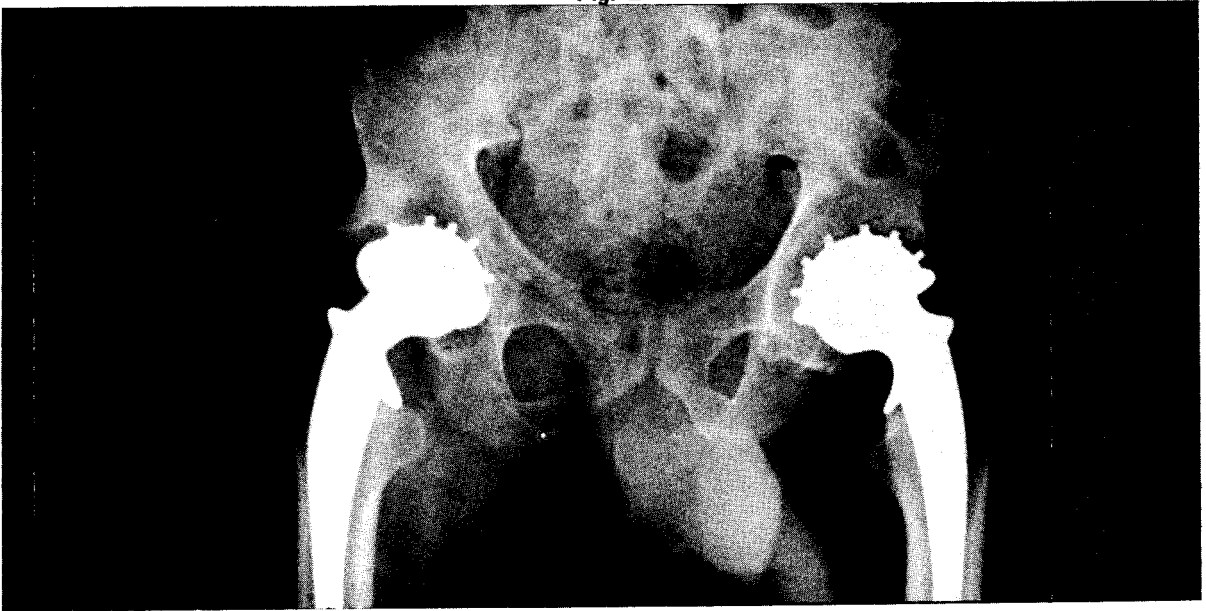
A male patient, aged 45 years. He was suffering from advanced osteoarthritis of both hips of several years duration. There was no history of injuries; the osteoarthritis was primary which is unusual in Zambia. His condition deteriorated during the past year. X-ray showed advanced osteoarthritis with avascular changes of the femoral heads, which explained this rapid deterioration of his condition. He was complaining of severe pain and marked limitation of movement. His walking distance was limited to a few steps only. The range of movement was as follows: flexion - 45 degrees, abduction - nil, adduction - nil, external rotation - nil, internal rotation - nil.

Both hips were replaced with McKee-Farrar prosthesis, with about 8 weeks interval between the two operations. Examination 12 weeks after the operations shows complete absence of pain - the walking distance was several miles, the patient was able to cycle normally. The range of movement was

Fig 1



Fig. 2



greatly increased and was painless. It was as follows: flexion - 90°, abduction - 60°, adduction - 40°, external rotation - 45°, and internal rotation - 25°

Case 2 (Figure 3, 4, 5)

A female patient, aged 55 years, had subacute pyogenic arthritis of the hip, resulting in the formation of an abscess and a chronic discharging sinus which persisted for several months. X-ray showed

extensive osteomyelitis of the femoral head, which had to be excised to control the infection. This resulted in Girdlestone-like unstable hip. The patient had to use an ischael bearing caliper and walking stick. Total hip replacement was performed 18 months after control of the infection. A few months after the operation she was able to walk without support for half mile without a noticeable limp, but

Fig. 3



Fig. 4



Fig. 5

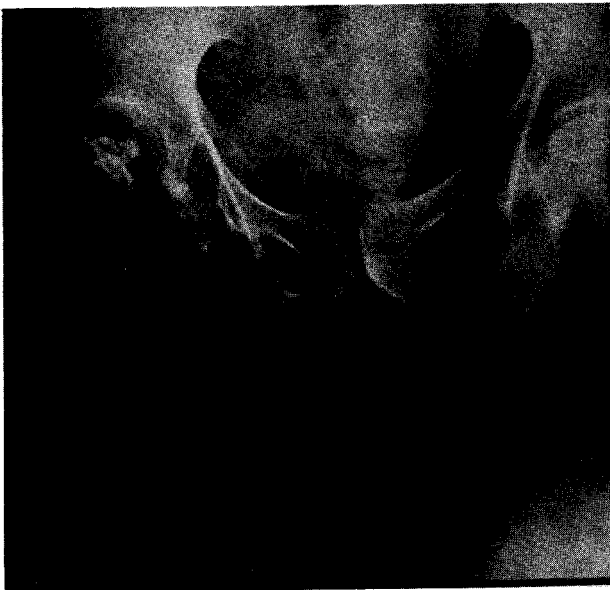


for longer distances she needed one walking stick. Her range of movement was: flexion - 95°, abduction - 45°, adduction - 30°, external rotation - 40°, and internal rotation - 35°.

Case 3 (Figures 6, 7)

A male patient, aged 50, had history of pyogenic arthritis of the right hip 35 years ago. Since that time he had never used his right leg. The right hip was markedly stiff, with flexion deformity, and there was 3 inches true shortening. X-rays showed that very little of the hip joint remained - the

Fig. 6



acetabulum was flat; the head of femur was destroyed; and the trochanter was displaced upwards. The patient used to move around by hopping, using the left leg and a long strong stick, holding it by both hands right in front of him. His left foot was more than half yard off the ground, because of combined shortening and the flexion deformity of the hip. The left leg was markedly atrophied from disuse. The operation was rather difficult technically. In place of the deural head and neck and capsule there was a thick vascular bundle of fibrous tissue, which was excised. The flattened acetabulum had to be excavated to accommodate the vitallium socket, and soft tissue release had to be performed to correct the flexion deformity. Traction was maintained for three weeks to maintain the correction of the deformity until the wound healed. Two months later the patient was able to walk without any support. Three quarters of an inch of residual shortening was compensated with a raised shoe. Intensive physiotherapy was required to strengthen his atrophied gluteal and thigh muscles. The range of movement was: flexion - 100 degrees, abduction - 50, adduction - 40, external rotation - 30, and internal rotation - 30.

Fig. 7



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