Disease of the hip is reported in 10%–17% of rheumatoid patients whereas the knee is involved in the majority. Hip involvement is more common in ankylosing spondylitis, in juvenile chronic arthritis and in rheumatoid arthritics receiving 7.5 mg or more of prednisolone per day (Poss et al. 1984); the hip is then involved in almost 50%.

Rheumatoid disease in the hip causes pain, limitation of motion and deformity. There is osteoporosis, loss of joint space and erosion which may progress to collapse of the upper quadrant of the femoral head. Destruction of the upper lip or floor of the acetabulum results in femoral head subluxation onto the ilium or central protrusion. Osteoporosis and bony collapse are aggravated by systemic corticosteroid therapy and inactivity. The rheumatoid hip loses movement early in contradistinction to the rheumatoid knee. Stability is required for weight bearing but a stiff hip throws undue strain on other joints during active life and increases nursing difficulties should the patient become chairbound. Rapid deterioration occurs in obesity, active males, severe osteoporosis, uncontrollable primary disease and those on pain-relieving drugs. The mean age of total hip replacement in rheumatoid arthritis is 10 years younger than in osteoarthritis.

Characteristically the pain begins in the groin and extends down the inner side of the thigh towards the knee; knee pain may be the presenting symptom. Pain occurs on weight bearing and at rest, night pain being aggravated by overactivity during the preceding day. An early symptom is difficulty in cutting toe nails, this is useful in identification of pain arising in the hip as distinct from that referred from the spine. Radiologically, rheumatoid disease of the hip is characterised by uniform diminution of joint space whereas in degenerative arthritis one or other segment is affected more severely.

Pain unrelieved by conservative means is the prime indication for surgery. Painless deformity and loss of motion may be an indication for surgery in ankylosing spondylitis because of the cumulative effect of spinal and hip stiffness.

Heat and gentle non-weight-bearing exercises in slings or in a pool may relieve pain and spasm and diminish the rate of destruction. A walking stick in the contralateral hand and wearing shoes with shock absorbing insoles can protect both hips and knees from the repeated percussion impact which accompanies heel strike when walking. A fine balance has to be achieved as absence of regular weight bearing aggravates osteoporosis.

If there is leg length inequality due to fixed
deformity at the hip a raised shoe may relieve pain but may encourage further deformity. Flexion contracture should be discouraged by periods of prone lying. Pillows beneath the knees when in bed and long uninterrupted periods of sitting should be avoided.

Surgical Priority

In general lower extremity joint involvement has a more immediate and profound effect on patient independence than comparable joint changes in the upper extremity. Surgery is often indicated first for the hip or knee to regain some independence and mobility (Unger et al. 1987; Ranawat 1989). When the ipsilateral hip and knee both require replacement, the hip should precede the knee. The exception to this is severe knee flexion deformity which increases the probability of hip dislocation following hip surgery (Chap. 3). Another possibility is to do both at the same time but patients in whom this is indicated are often frail and less able to cope with major surgery. Bilateral hip replacement at one stage increases the risks of cardiopulmonary complications including thromboembolism. In general we prefer to do one major joint replacement at a time.

Synovectomy

Synovectomy may be beneficial in the early stages of rheumatoid disease of the hip when there is pain without destruction; a limited anterior procedure is sufficient and dislocation is unnecessary. Decompression of the joint without synovectomy may be sufficient as it is the increased intra-articular pressure which is probably responsible for pain. It may also impair the blood supply to the head of the femur hastening its destruction especially in the child. Usually the disease is too advanced for synovectomy by the time the orthopaedic surgeon is consulted and it is rarely done. Arthroscopic synovectomy is not yet routine (Hawkins 1989).

Adductor Tenotomy

Tenotomy is a useful adjunct to other operative procedures but is seldom of value on its own. The tenotomy may for example allow abduction after an excision arthroplasty. It is seldom indicated in total hip replacement as a fixed adduction deformity usually corrects spontaneously in the 6 months following replacement.

Osteotomy

Intertrochanteric osteotomy for pain in rheumatoid disease is not as rewarding as in degenerative arthritis and it has been suggested there is no place for it in rheumatoid arthritis owing to occasional postoperative collapse of the femoral head. We believe that osteotomy still has a limited place when degenerative arthritis is superimposed on a hip in which the rheumatoid process is quiescent and total hip replacement is contraindicated (Fig.15.1). There is a recent revival of interest in intertrochanteric osteotomy due to the poor results of total hip replacement in the young (Chap. 8).

Excision Arthroplasty

Girdlestone's original excision arthroplasty (Girdlestone 1943) was done for pyogenic arthritis of the hip. The operation was designed to remove infected bony tissue and to restore some mobility and stability to the hip. Following this procedure patients gain a reasonably pain-free hip with a fair degree of motion (Fig.15.2). The disadvantage is loss of leg length and a marked Trendelenburg limp owing to the inability of relatively lengthened abductor muscles to hold the trunk over the weight-bearing leg. The majority of patients require a stick. With the advent of total joint replacement a similar procedure was once more required to eradicate infection in a total joint replacement. If an