Rheumatoid arthritis is a common disorder with a prevalence in the population of about 3%. The pathology of rheumatoid arthritis progresses from early stages of vascular congestion and oedema to inflammatory granulation tissue (pannus) and ultimately leads to end stage rheumatoid arthritis with evidence of destruction not only of joint cartilage but also of joint capsule and ligaments. This results in mechanical disruption with evidence of subluxation and deformity amenable only to surgery.

By no means all patients require intervention from an orthopaedic surgeon, but in those patients who do need surgical treatment, multiple operations are often required, and this clearly imposes a considerable workload. In a recent survey of 91 patients with rheumatoid arthritis alive at a 10 year follow up from the time of prescription of their first second line drug, 65 (71%) had undergone a total of 162 surgical procedures, 50 on the upper limb and 112 on the lower limb.

Any joint or tendon which has a synovial lining may be affected and thus, unlike patients with osteoarthritis where one or two operations may restore function to virtual normality, rheumatoid patients are likely to remain relatively incapacitated even after successful joint surgery. Hands, wrists, feet, and knees are commonly affected, but at a later stage so too are shoulders, elbows, hips, and cervical spine.

Symptoms which indicate the need for possible surgical intervention include pain and loss of function. Pain at night or which is incapacitating during the day despite optimum antirheumatic treatment should lead the physician or general practitioner to seek help.

Coordination of the management of such patients is clearly challenging for the rheumatologist and orthopaedic surgeon and it is important that a team approach is used. This might be in a formal combined clinic or simply a facility for informal discussion of individual cases as required. A precise anatomical diagnosis is important and tailoring of surgical treatment to patients’ needs is vital. Of particular importance is the timing of surgery. This should take into account many factors, including general disease activity of rheumatoid arthritis and the control of intervening complications such as anaemia.

The outcome of surgical intervention may well differ according to the extent of joint disease. This should be carefully explained to the patients and their families in order to avoid an unrealistic expectation. The order of surgery—that is, upper or lower limb first and which particular joint should take priority, requires careful evaluation. Difficulty with toileting might result in a hip replacement taking precedence over the other lower limb joints. Similarly, attention needs to be paid to flexion deformities of the knees when deciding which joint to tackle first. In other instances, shoulder, elbow, hand, or wrist disease must be treated to allow the use of a walking aid when mobilising after lower limb surgery. Disease of the cervical spine may make an imperative demand on surgical time, even before other surgical procedures can be undertaken.

There are in addition, practical considerations, such as the availability of surgical time and expertise. It might be that a number of orthopaedic surgeons will assist in the management of an individual case. Some units are fortunate in having orthopaedic surgeons with a particular interest in patients with rheumatoid arthritis who are able to perform operations on a number of different joints.

A series of operations will make demands on the resilience of a patient already disadvantaged by pain and by the disability imposed by chronic rheumatic disease. It is important to gain the confidence of a patient and sustained support is essential. Written information should be available both before the operation and afterwards for patients who have had joint replacements and this should always include advice about prevention of late sepsis.

Recent developments in operative techniques have increased the range of available surgical intervention as the ensuing chapters will indicate. It seems likely that for the foreseeable future joint damage in rheumatoid arthritis will necessitate sustained care from a team of orthopaedic surgeons, rheumatologists, and paramedics in order to provide optimum relief from symptoms and maintenance of function.

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