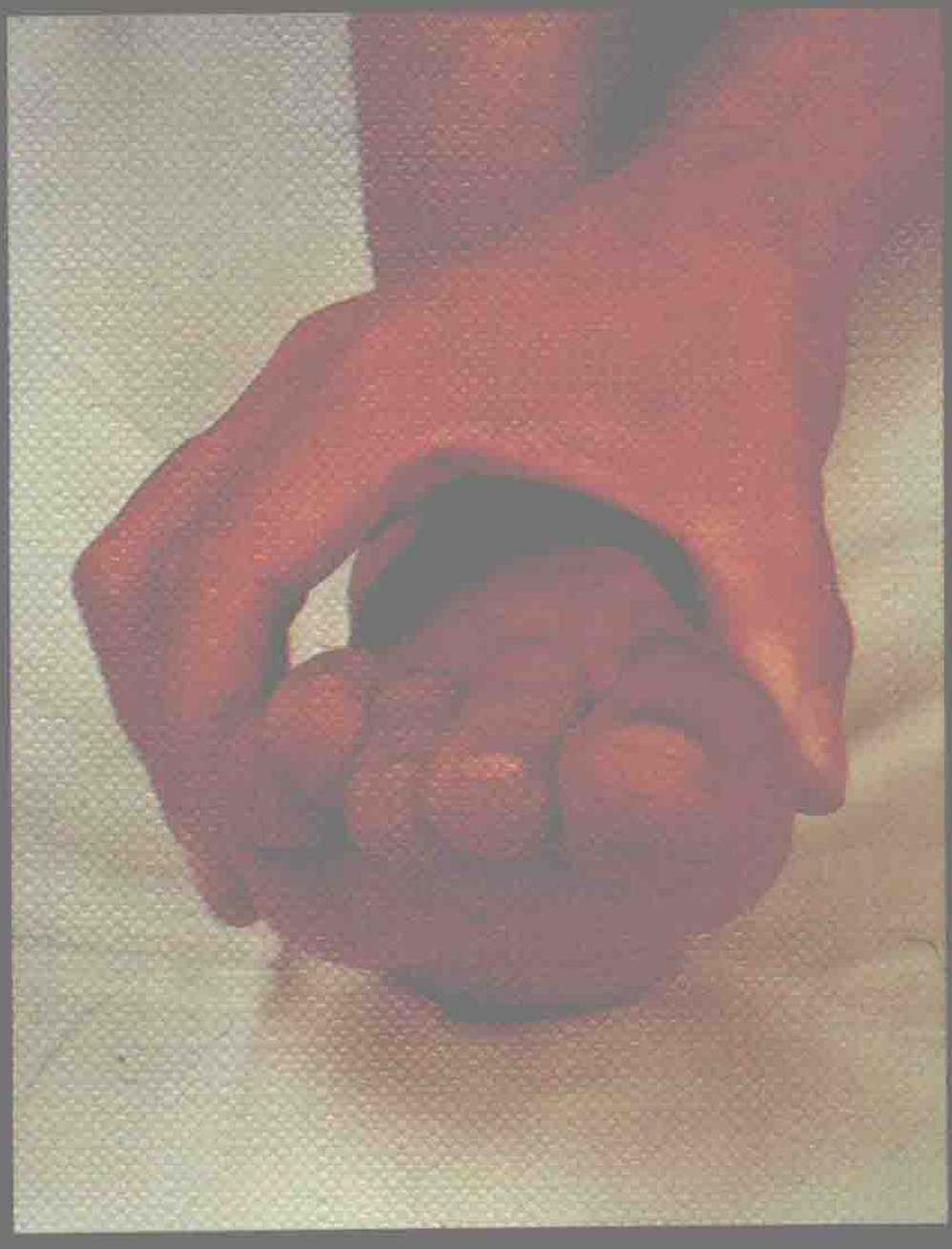
Pocket Picture Guides
to Clinical Medicine

Rheumatic Diseases

Michael Shipley



Williams & Wilkins

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to Clinical Medicine

Rheumatic Diseases

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Shipley, Rheumatic Diseases

ERRATUM

Page 75, lines 5 and 6 should read:

Colchicine is given in a dose of 1mg, then 500μg three hourly for nine hours and finally 500μg three times a day.

Pocket Picture Guides to Clinical Medicine

The purpose of this series is to provide essential visual information about commonly encountered diseases in a convenient practical and economic format. Each Pocket Picture Guide covers an important area of day-to-day clinical medicine. The main feature of these books is the superbly photographed colour reproductions of typical clinical appearances. Other visual diagnostic information, such as X-rays, is included where appropriate. Each illustration is fully explained by a clearly written descriptive caption highlighting important diagnostic features. Tables presenting other diagnostic and differential diagnostic information are included where appropriate. A comprehensive and carefully compiled index makes each Pocket Picture Guide an easy to use source of visual reference.

An extensive series is planned and other titles in the initial group of Pocket Picture Guides are:

Infectious Diseases
Sexually Transmitted Diseases
Skin Diseases
Pediatrics

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Introduction

A rheumatologist sees a wide variety of diseases and complaints; their diagnosis and management is a constant challenge. Although frequently self-limiting and rarely fatal, the rheumatic diseases are common and cause considerable pain and suffering. They can, however, be alleviated by early diagnosis and prompt intervention.

Pain is a symptom common to most of these complaints and often anxiety and depression about possible progressive disability must be recognised, and reassurance given whenever possible. Indeed, some cases will require little more than reassurance and simple physical measures such as support, rest, heat or various physiotherapeutic techniques. At the other end of the spectrum the diagnosis of, for example, rheumatoid arthritis, may mark the beginning of a lifetime's relationship between the patient and his or her medical advisers. Reassurance in such cases must be tempered with realism, although fortunately the rapidly progressive case leading to severe disability is rare and many such patients lead relatively normal lives. RA is still incurable in 1983, but the patient should certainly not be left without hope.

Drugs are playing an increasingly important part in the management of painful inflammatory conditions but of late, their relative lack of efficacy in some cases, and potential for producing side-effects in others, are leading to disillusionment amongst patients. Analgesic and acute inflammatory agents are undoubtedly valuable therapeutic tools. However, their excessive and inappropriate use may eventually bring them into disrepute and thus limit the freedom of the medical profession to prescribe them for the more severe inflammatory disorders, where they do definitely bring comfort and relief.

It is hoped that the pictorial format of this handbook will provide clues on how to approach the management of some of the commoner rheumatic problems and suggest when specialist referral might be advisable. Clinical pictures have been supplemented where appropriate with diagrams or tables to provide convenient visual reference and aides memoires.

Contents

Osteoarthritis of peripheral synovial joints

Osteoarthritis produces a wide variety of symptoms; these are often mild, and may require little more than reassurance from the doctor, but symptomatic OA is common with increasing age and is a significant cause of pain and misery in the elderly. It causes the loss of several million working days every year and is the most common cause of disability in the United Kingdom. Genetic factors appear to be involved in the aetiology but they are complex, and there is a wide geographic variation of both joint distribution and prevalence. The prevalence is particularly high in the UK. Trauma due to fracture through the joint or caused by certain sporting activities, congenital abnormalities or joint damage from pre-existing infective or inflammatory arthritis may predispose a patient to the development of OA.

OA of peripheral synovial joints develops after an initially reversible phase during which fibrillation of the articular cartilage occurs. This change is associated with specific biochemical and histological abnormalities of the cartilage. Subsequent destruction of the articular cartilage leads to sclerosis and remodelling of the exposed sub-chondral bone. Periarticular osteophyte formation and a variable degree of synovial inflammation also occur. Recent work has suggested that an inflammatory component may be involved in the development of this disease and that crystals of calcium hydroxyapatite may either initiate or perpetuate the inflammation. Biochemical studies are also beginning to shed some light on this process and prevention may eventually become feasible. In the meantime, treatment is by analgesic and non-steroidal anti-inflammatory agents, the use of which should be continually reviewed to see whether their prescription is indeed still beneficial. Physiotherapy has a role to play but is usually only helpful for a brief period after completion of the treatment. Surgery offers the greatest hope in the patient whose pain or disability is sufficient to warrant it, but the greatest challenge lies in the management of those patients whose pain both on movement and at night is a cause of persistent distress, but in whom surgery is not yet indicated.

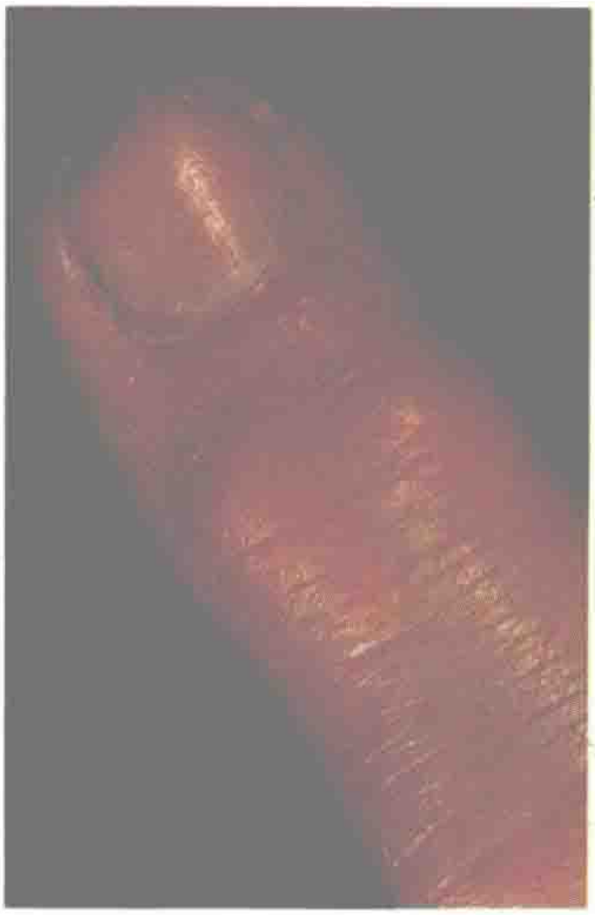
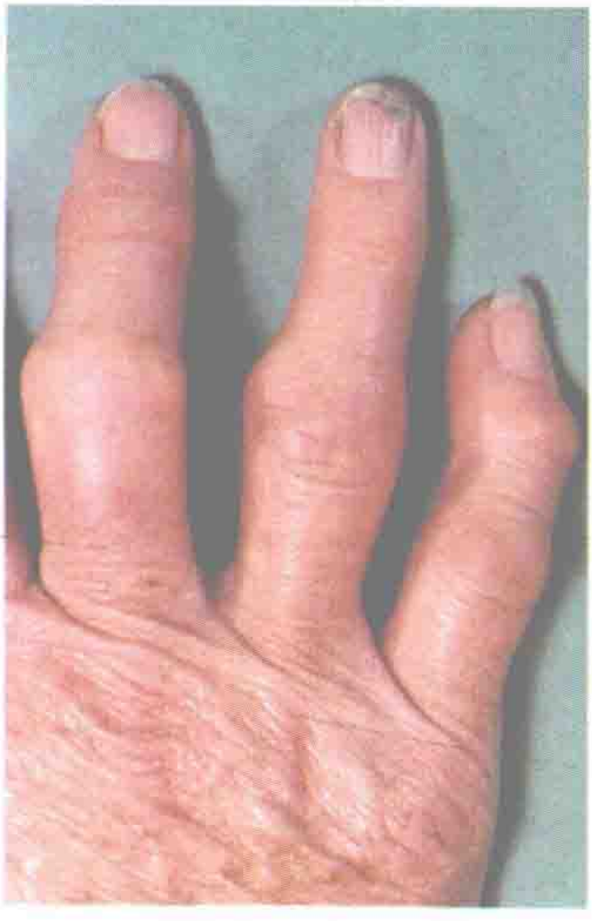


Fig. 1.1 Heberden's nodes are the commonest manifestation of osteoarthritis presenting to a doctor. They occur mainly in women over the age of 50. Initially painful, they usually result in painless stiffening and occasionally instability. Typical radiological changes are loss of joint space, sclerosis, osteophytes and cystic changes.



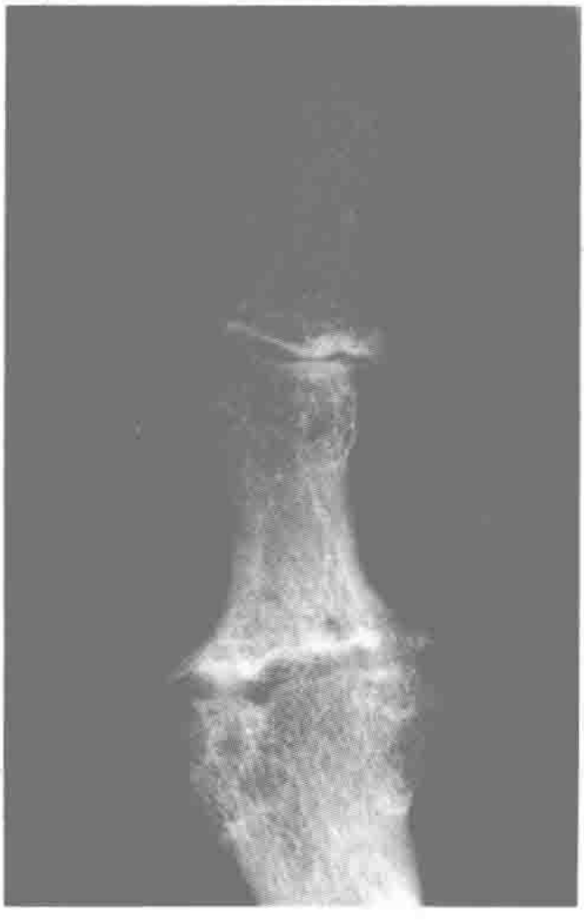


Fig. 1.2 Less commonly, the proximal interphalangeal (PIP) joints are involved with bony swelling (Bouchard's nodes) and have similar radiological appearances. Such involvement is often a cause of concern to the patient who fears a more generalised disease and resultant disability. Fortunately this is relatively uncommon and reassurance is usually possible.

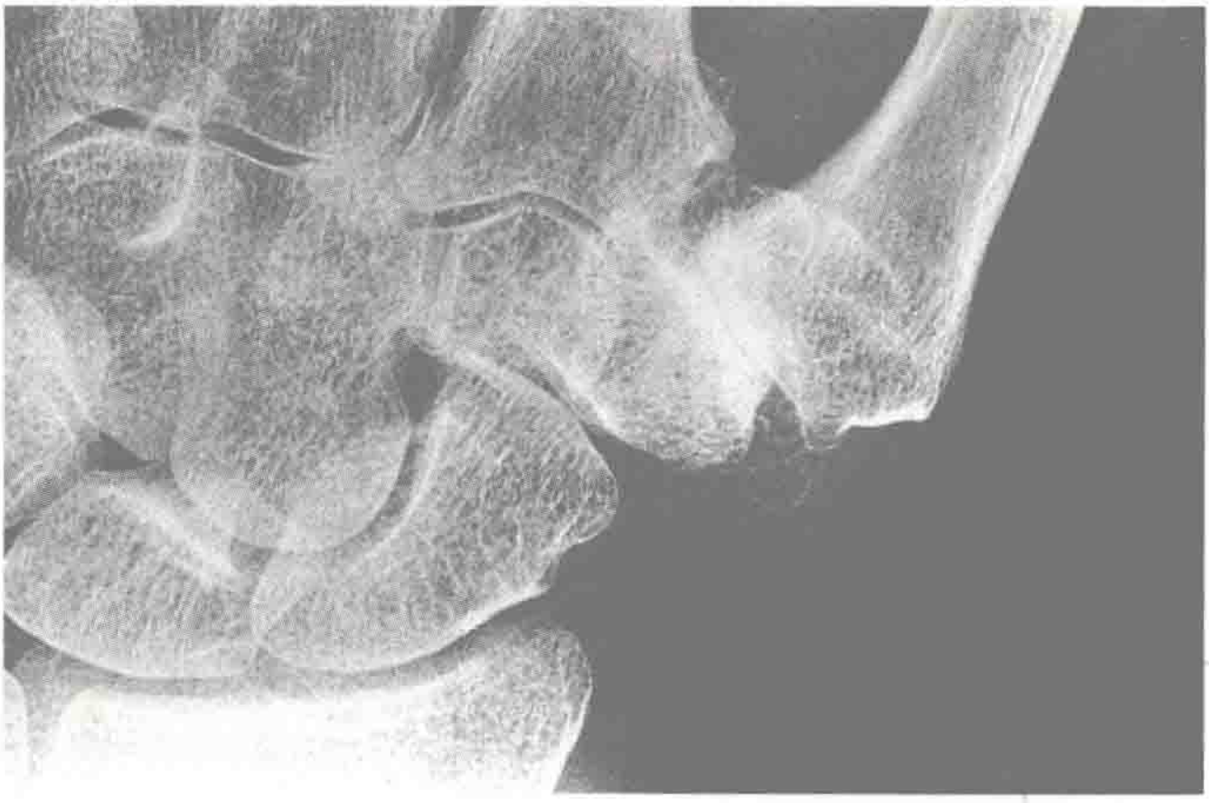


Fig. 1.3 Osteoarthritis of the first carpometacarpal (CMC) joint, again more common in women, frequently causes pain at the base of the thumb. Local steroid injection may help but usually the joint becomes stiff with the thumb adducted, giving the hand a typically square appearance. Occasionally surgery is indicated in severe cases.

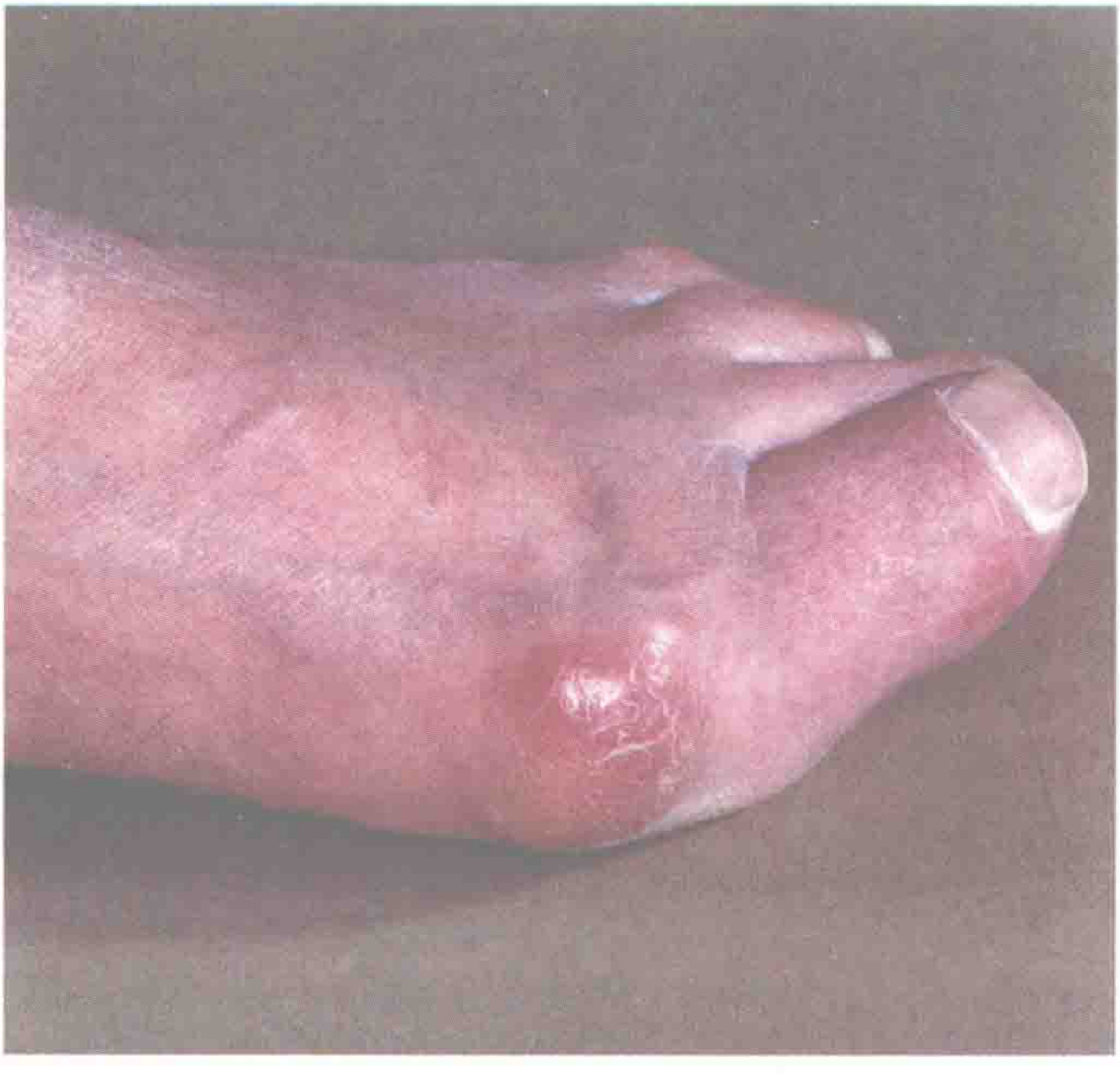


Fig. 1.4 OA of the first metatarsophalangeal (MTP) joints leads to either hallux rigidus or to a hallux valgus deformity when the overlying painful bursa (bunion) may be a source of discomfort.

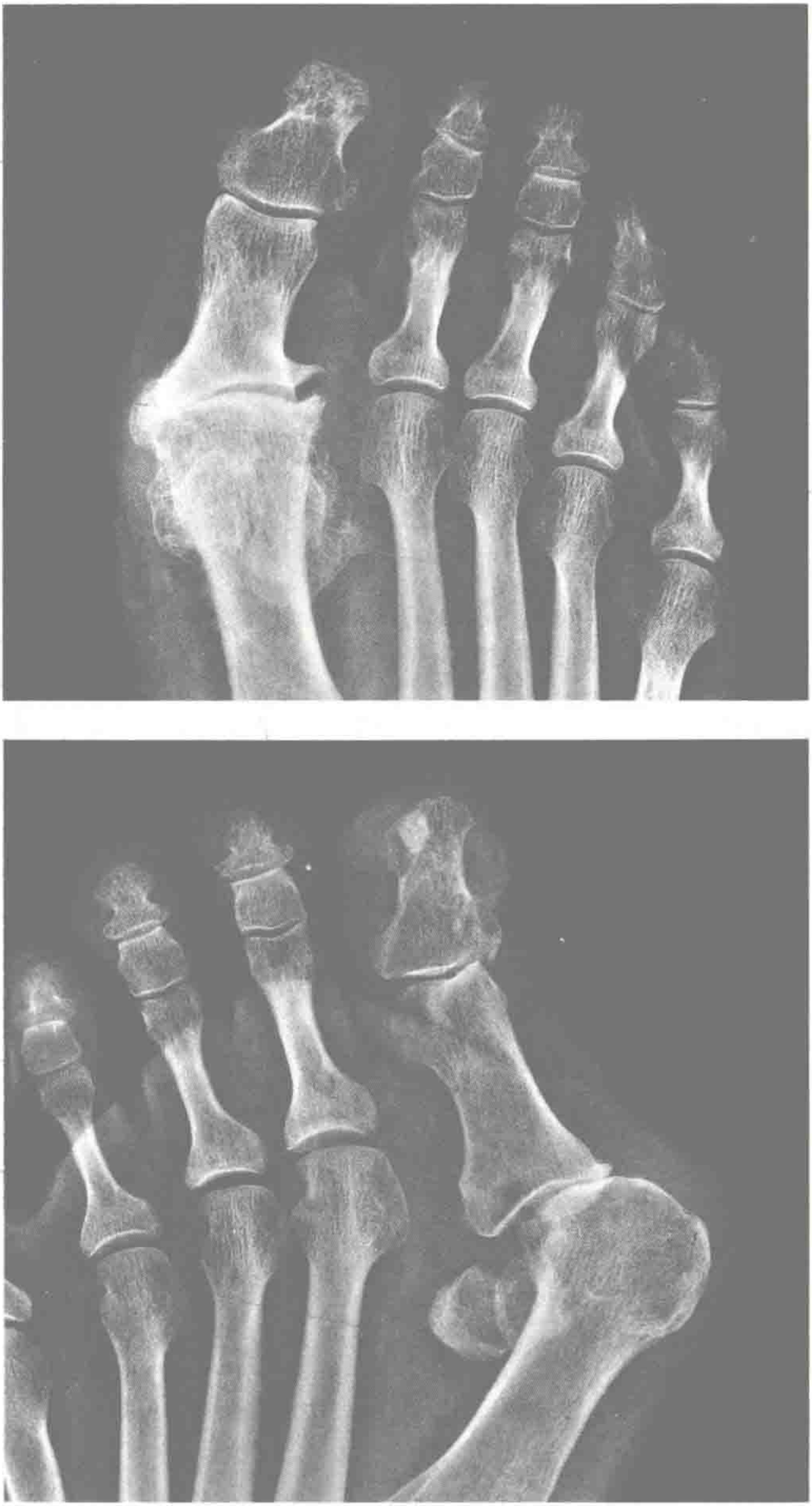


Fig. 1.5 Hallux rigidus is often associated with a degree of valgus deformity but the radiological appearance with florid osteophyte formation (upper) distinguishes it from simple hallux valgus (lower).

Factors predisposing to osteoarthritis	
Trauma	Fracture through joint Meniscus injury / surgery Joint instability Occupational and sporting
Congenital anomaly	Congenital hip dislocation Epiphyseal dysplasia
Inflammatory arthritis	Rheumatoid arthritis
Metabolic diseases	Gout Chondrocalcinosis Acromegaly Ochronosis

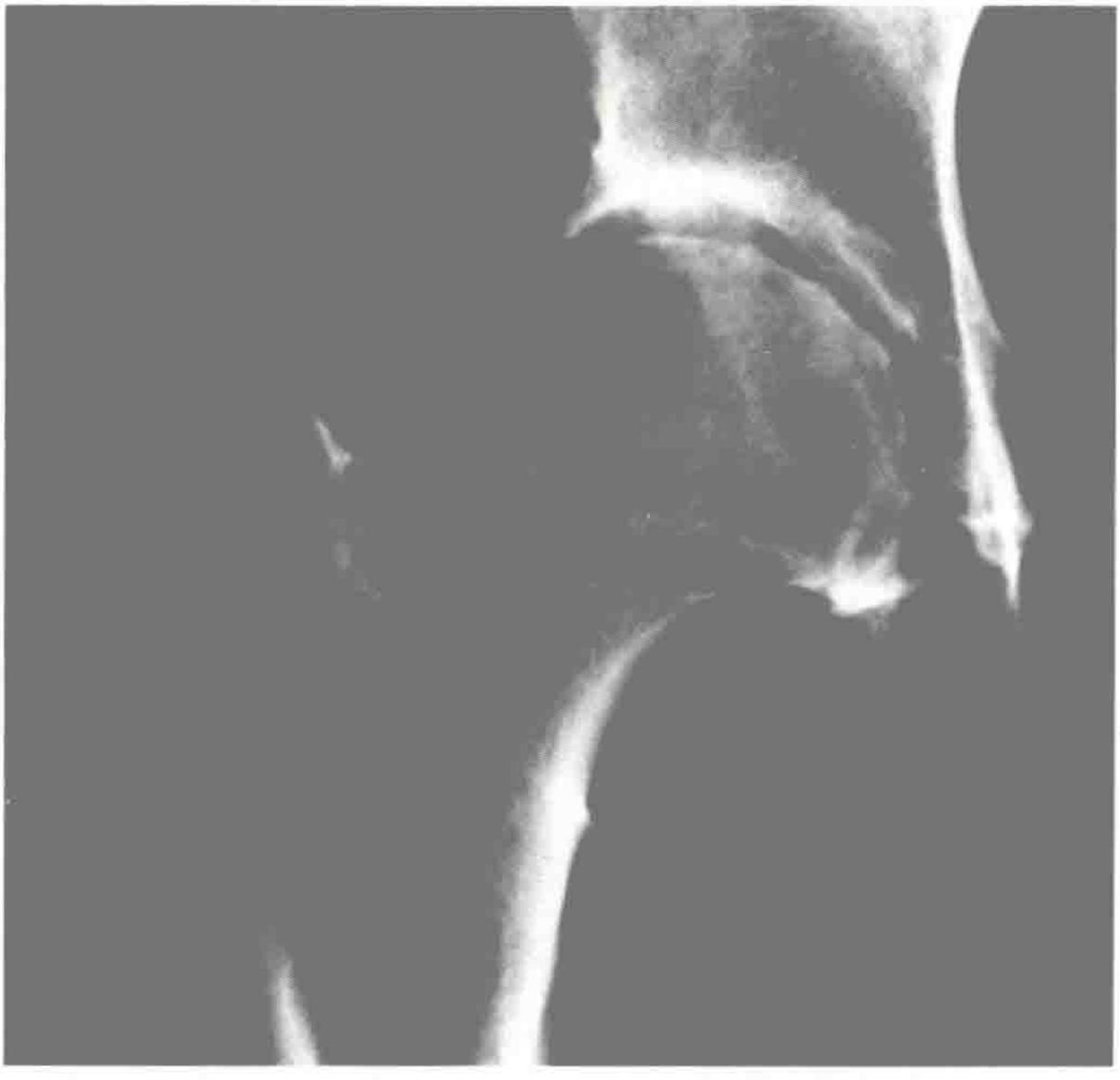


Fig. 1.6 OA is probably best thought of as the final common pathway of a variety of predisposing factors which lead, via cartilage damage, to reactive bony changes. Its pathogenesis is multifactorial although certain predisposing factors can be identified. Here, acromegaly is associated with irregularity of the bone surfaces despite normal cartilage thickness.

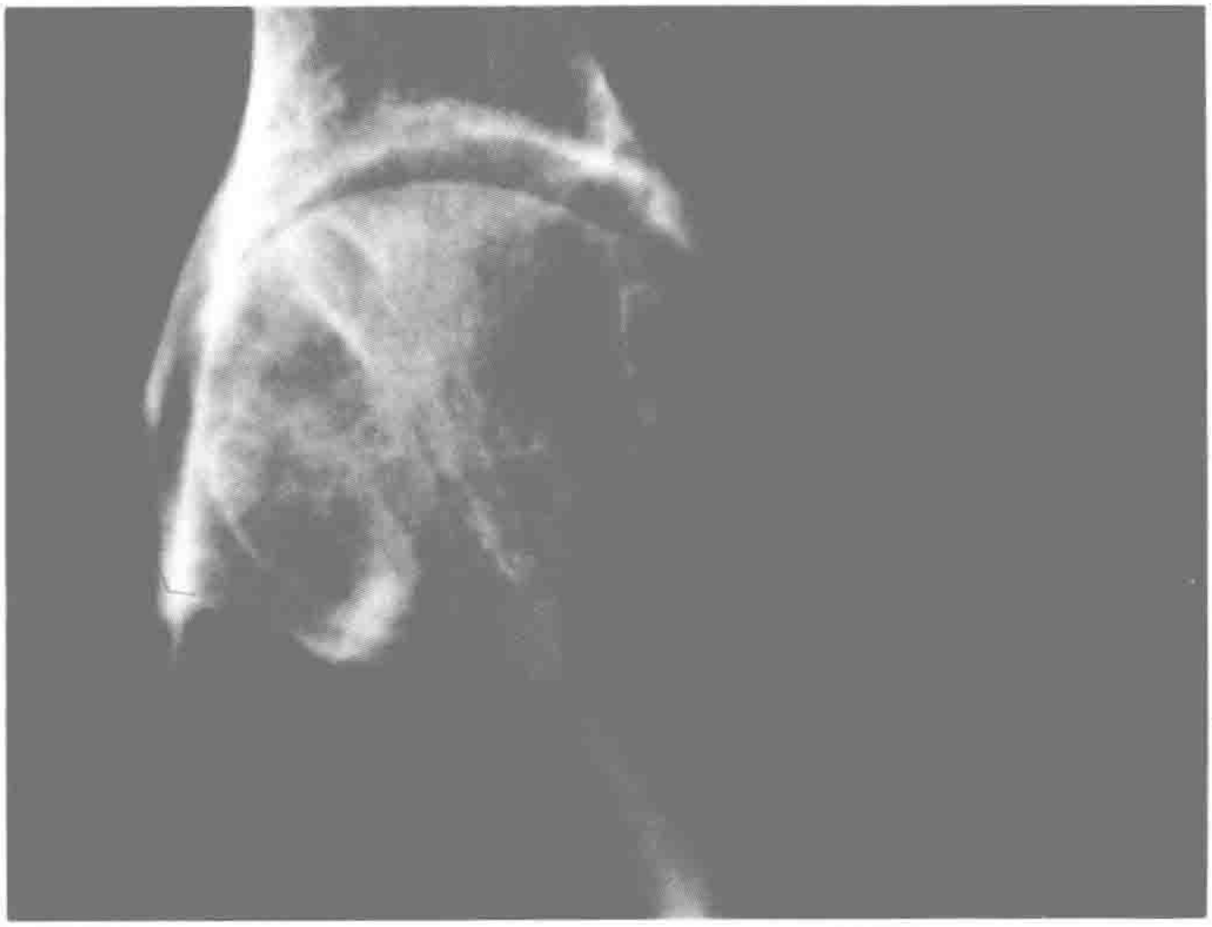
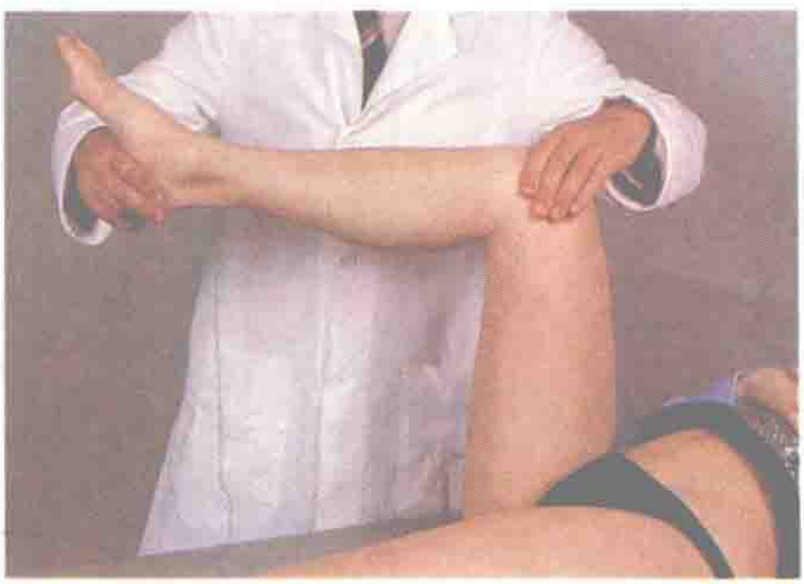


Fig. 1.7 OA of the hip initially causes pain in the buttock and groin. This pain may radiate to the knee, which is occasionally the main site of referred pain, causing confusion and delay in diagnosis. Radiologically there is loss of joint space which may be concentric, superior or occasionally central as shown here.



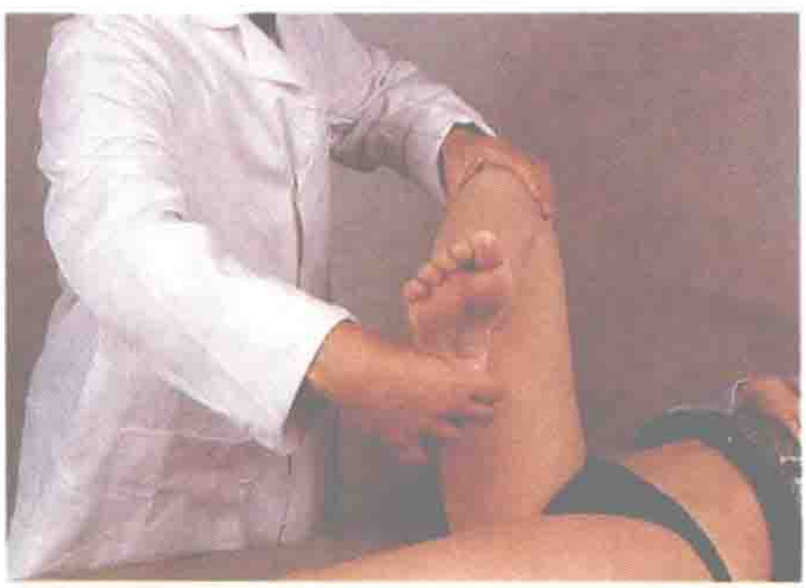


Fig. 1.8 Clinical examination early in the disease may be unremarkable, but reduced internal and external rotation can often be detected with the hip flexed. The procedure may reproduce the patient's pain, which is present mainly on weight-bearing at this stage.

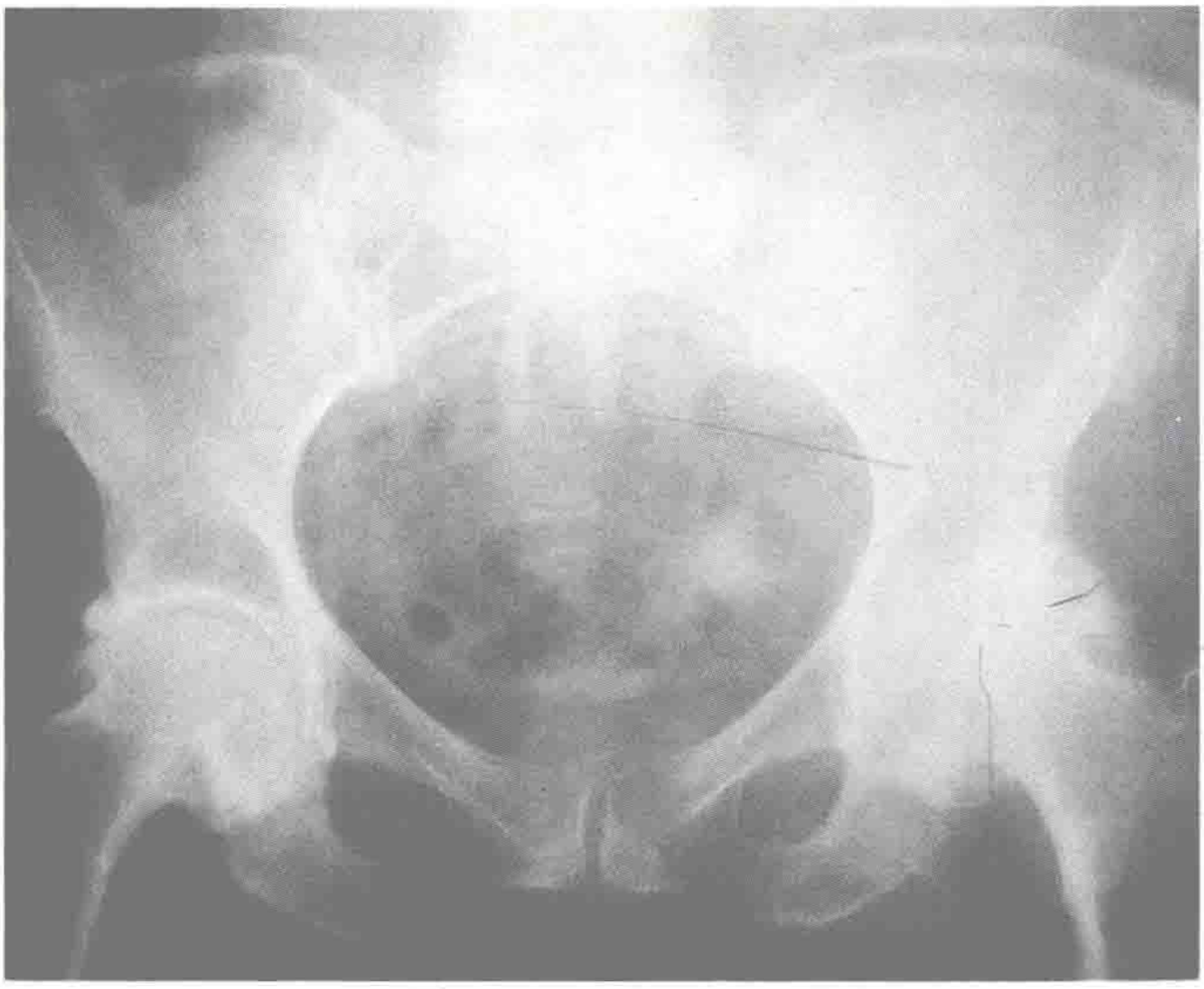


Fig. 1.9 As the disease advances further, so florid osteophyte formation may limit movement of the joint. The patient finds it difficult to reach his foot to tie shoe laces, put on socks or stockings etc. Night pain may become troublesome.

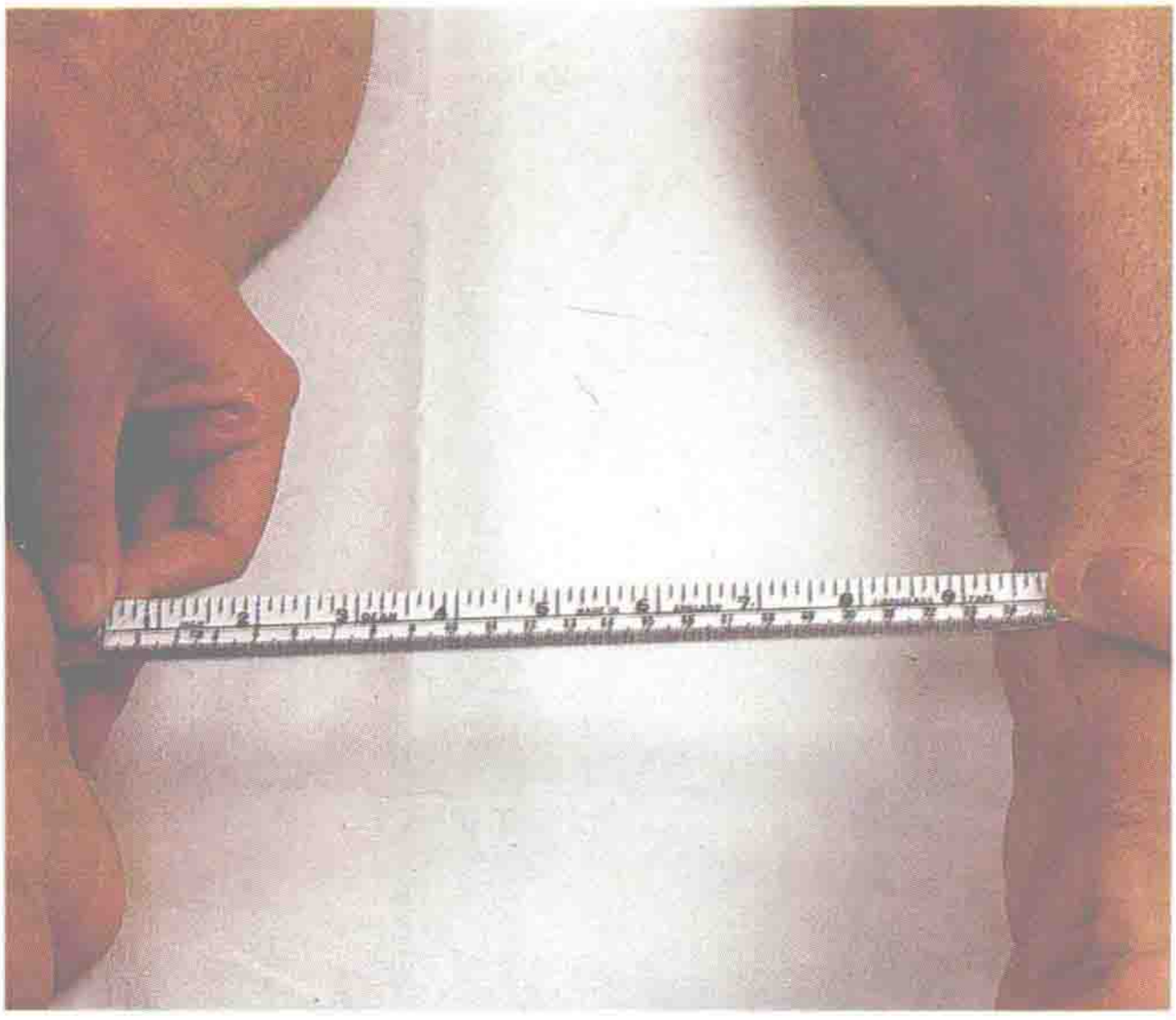


Fig. 1.10 Gross limitation of abduction can be measured directly as the intermalleolar distance. More rarely, fixed abduction occurs.

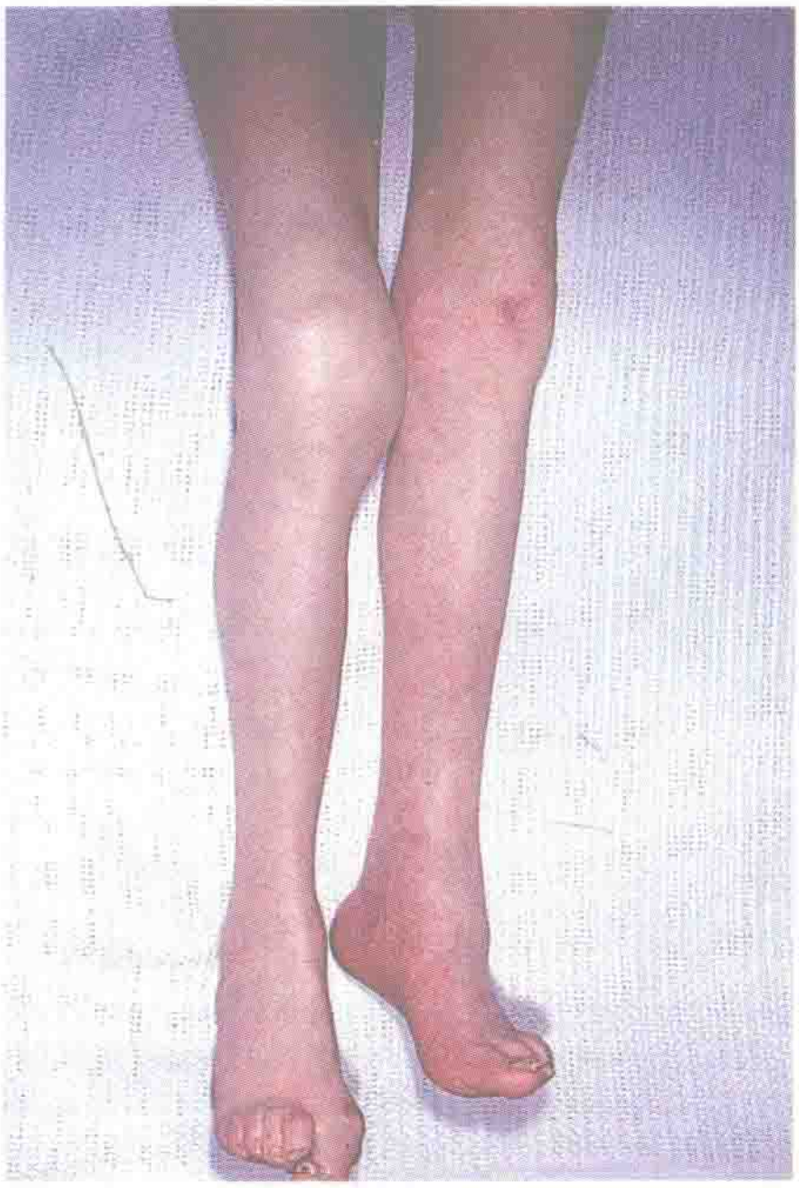


Fig. 1.11 There is often fixed adduction, flexion and external rotation which leads to pelvic tilting and apparent shortening of the affected leg. Back pain often results and there may be stressing of the opposite knee leading to further pain and disability (the so-called 'long leg' syndrome).

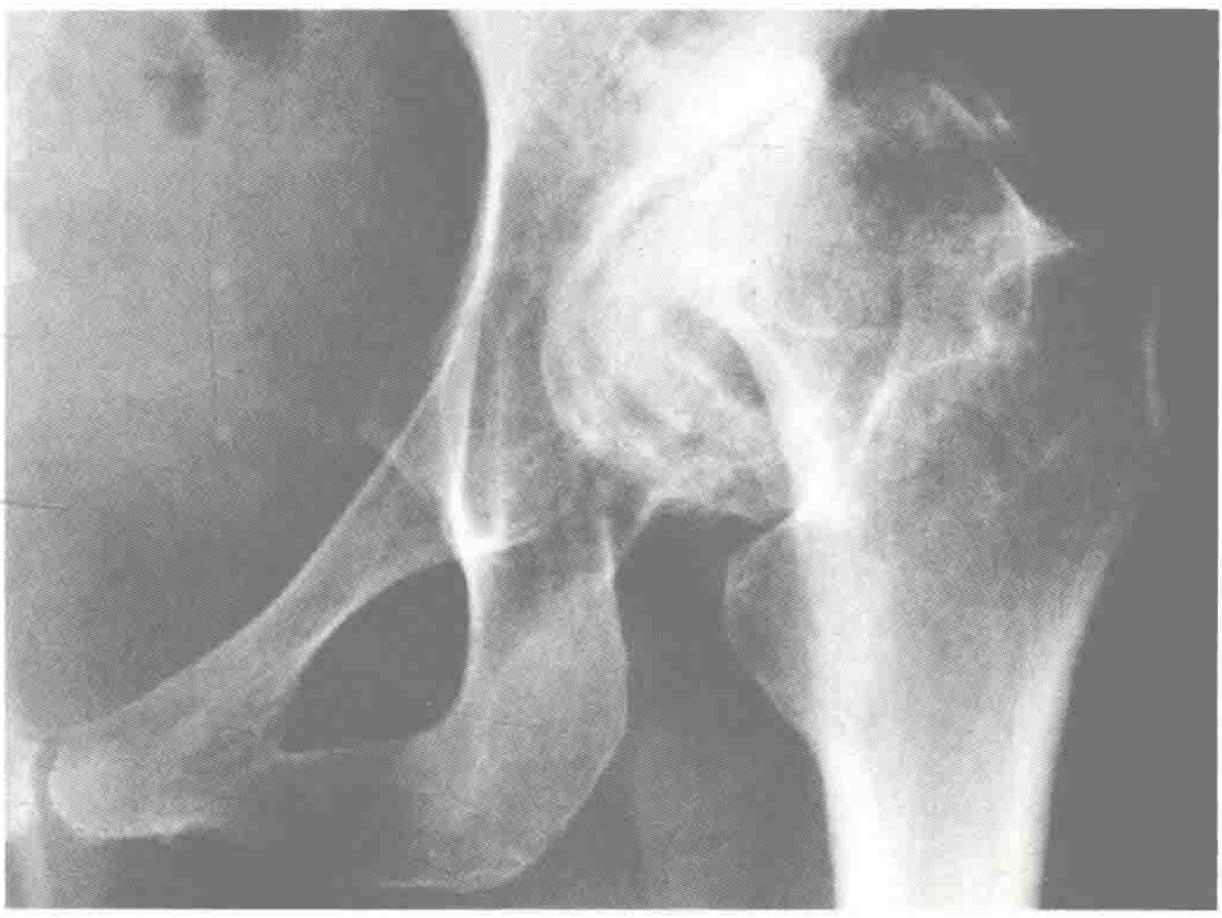


Fig. 1.12 Premature OA of the hip is often associated with some predisposing factor; here a patient with previously undiagnosed congenital dislocation of the hip (CDH) demonstrates resultant deformity of the femoral head and OA. Such cases make the early detection and management of CDH essential.