benefit, let the committee know so that they can be incorporated into training.

CPD WEB PAGES

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INFLAMMATORY RHEUMATIC DISEASES

Rheumatoid Arthritis (RA)

Rheumatoid Arthritis (RA)

This is the most common and severe of the inflammatory diseases. It is more prevalent in women than men, with about 50%of cases occurring before the age of 40. This means that the disease often affects people at the peak of their professional and social development.

Pathology

Rheumatoid arthritis is an inflammatory disease of unknown aetiology. Within the joints the inflammation predominantly involves the synovial membrane. The initial effect is soft swelling of the joint produced by the synovial thickening and increased production of synovial fluid by the inflamed membrane. This swelling causes the articular capsule to stretch, and this capsule being inelastic means it remains stretched. As the capsule is involved in joint stability and alignment, this stretching contributes to later

instability and deformity.

The inflammation may involve any or all of the joints in the body. Involvement is usually symmetrical, and the small joints of the hands and feet are the most commonly involved, both at the beginning of the disease and during its course. Although conventionally called an arthritis, the inflammation of rheumatoid disease is not confined to the joints. Similar inflammatory changes occur in tendon sheaths and muscles are involved by inflammation as well as disuse. Inflammation can also occur in non-locomotor sites such as the pericardium and pleura. Inflammation in the lungs leads to pulmonary fibrosis. Inflammation in the blood vessels, rheumatoid vasculitis, may cause lesions varying in severity from small nodular vasculitic lesions to large ulcers and even major tissue loss and gangrene.

Rheumatoid nodules are pathegnomonic of rheumatoid arthritis and tend to occur at points of pressure. Although the classical position is at the elbows, they may also occur in the feet, often causing problems with footwear.

Fig 1. Rheumatoid Nodule

Diagnosis

Although RA is a common disease in the community, new cases are relatively infrequent. The diagnosis is clinical, based on the patients history of joint pain accompanied by morning stiffness and general fatigue and the observation of joint swelling. A blood test will confirm the presence of Rheumatoid factor(RF) which is an auto-antibody. X-rays of the hands and feet may show the typical erosions of rheumatoid arthritis. RA is a disease of exacerbation's and remissions, i.e. periods when inflammation is active and times when inflammatory activity is less.

Articular Features

The most obvious articular signs of RA are in the hands with swelling of the metacarpophalangeal and proximal interphalangeal joints occur early. In the lower limbs, synovitis of the knee with considerable swelling is quite common. The ankle joint may be involved by rheumatoid synovitis with associated joint destruction. However, much pain described by the patient as ankle pain in fact arises from the hindfoot joints. The calcaneum tends to drift into abduction at an early stage of the disease. The midfoot tends to assume a valgus sag. Clawing of the toes occurs early in the disease. When the toes become chronically clawed, the fibro-fatty pad located under the MTP joints migrates distally, leaving the metatarsal heads superficially placed under the skin. Patients often describe this as a feeling of walking on pebbles or marbles.

Non-articular Features

Rheumatoid tenosynovitis may involve any of the tendon sheaths in the foot, with local pain, swelling and obstruction to the smooth function of the tendons. Rheumatoid vasculitis may cause not only loss of skin tissue but also, when the vasi nervori are involved, peripheral sensory neuropathy. Skin loss can also occur through abrasion and pressure from footwear. This occurs most commonly over the first MTP joint and the interphalangeal joints of the toes. In contrast, the skin under the metatarsal heads shows thickening and cornification, and a similar reaction may occur over the interphalangeal joints before, or instead of, ulceration.

(Information from Neale's Common Foot Disorders-Diagnosis and Management. Churchill and Livingstone, fifth edition 1987)

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