

This Educational Series Is Brought To You By



OSTEOARTHRITIS - a patient's guide

Dr Logan McLennan - Family Doctor

Overview

Osteoarthritis refers to a loss of the ability of articular cartilage to absorb shocks and repair itself with subsequent slow degeneration.

It is rare before the age of 45 and more common in women.

Unlike rheumatoid arthritis, inflammation in a joint is not the major feature. Often just a few joints are affected.

Pain control is the first treatment but surgical measures may be required with time.

What is Osteoarthritis?

Most of the joints in the body are lined with articular cartilage. This is a living gristle that arises from the end of a bone where it moves against another bone. It has a shiny slippery surface and the capacity to absorb shocks and repair itself after injury. Arthritis refers in part to diseases of this articular cartilage.

There are two major kinds of disease that can attack the articular cartilage. The first is inflammatory arthritis for example rheumatoid arthritis. In this disease, the immune system wrongly perceives the articular cartilage as a foreign invader and attacks it causing a painful inflammation. The second disease occurs when the articular cartilage loses its ability to repair itself and recover from micro-injuries (repeated very small injuries) and starts to degenerate. This is osteoarthritis. Over time the shiny slippery articular surface becomes roughened and abrasive causing pain with movement. The degeneration of the articular cartilage also causes changes to the underlying bone and these can show up on x-ray.

Osteoarthritis seems to favour certain joints - for example the knees and the hips but also is more likely to happen in a joint that has suffered a major injury at some time e.g. a fracture involving a joint. This is why it is so important to get good alignment of bone when dealing with a fracture involving the articular cartilage of a joint.

It is unknown why osteoarthritis occurs more in some people than others and in some joints more than others. It is a disease of other animals as well as humans and one theory for its predilection for certain joints in humans relates to the fact that we have become elevated onto two legs quite recently in evolutionary history.

Osteoarthritis is much more common with advancing age and quite rare before the age of 45.

The amount of pain from osteoarthritis is often out of step with the apparent damage as judged by joint x-ray.

This Educational Series Is Brought To You By



Osteoarthritis is more common in women and less common in black and Asian populations. This may be due to genetic factors.

Certain factors can predispose towards osteoarthritis, such as fracture into a joint, obesity, overloading joints or muscle injury, or weakness removing the protective effects of strong muscles around joints.

What are the symptoms?

Pain is the worst symptom. At first pain occurs with movement and may be located within the joint or around it. Over time pain may occur at rest.

The function of the joint may be impaired and this may not bear much relationship to pain.

The damage to the slippery articular surface may cause a reaction in underlying bone resulting in bony enlargement (called a Heberden's node when it occurs in a joint at the end of a finger).

The osteoarthritis sufferer may also notice reduced joint movement, creaking of the joint and instability and weakness around the affected joint.

Inflammatory arthritis such as rheumatoid arthritis is characterised by warmth and swelling associated with pain - what is called synovitis. This can sometimes happen to some extent with osteoarthritis also.

How is the diagnosis made?

The diagnosis is made firstly by excluding other joint problems such as gout or infection. Inflammatory arthritis is usually excluded by the pattern of joint involvement and the lack of synovitis but sometimes a blood test is done to help exclude inflammatory arthritis. There are no specific blood tests to diagnose osteoarthritis.

X-ray changes may confirm the clinical diagnosis.

Some sufferers with bad pain may have few changes on x-ray and conversely, people with significant x-ray changes may have few symptoms.

What is the treatment?

Osteoarthritis involving hips and knees (weight-bearing joints) can often be helped by weight loss to reduce the load on joints and slow progression.

Increasing the strength of muscles around joints can help protect the joint. This may require exercises under guidance of a physiotherapist.

The use of special insoles or cushioned shoes can help correct misalignments of joints.

This Educational Series Is Brought To You By



Pain control is important. Because osteoarthritis is not an inflammatory arthritis for the most part, anti-inflammatory drugs like voltaren and naprosyn have no specific advantage over simple painkillers but may have more severe side effects.

Osteoarthritis in knees and hips can be helped dramatically by an artificial joint replacement but this is usually reserved for serious end-stage disease. Other surgical techniques can be tried before joint replacement such as cleaning out of joint debris through a joint telescope (arthroscope), osteotomy (surgical realigning of bones to alter loading on joint surfaces) and fusion of painful joints to make a solid, non-moving and non-painful joint (arthrodesis).

Joint injection with anti-inflammatory steroids is less useful than it is for rheumatoid arthritis and may contribute to articular cartilage breakdown in some situations.

Other factors such as anxiety, depression and lack of social support can affect the symptoms and outcome for sufferers of osteoarthritis and a support group may help the person feel less disabled and isolated.