key points

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The pathology of OA includes loss of cartilage, damage to the menisci and changes within the bone underneath the cartilage, including osteophytes. Inflammation within the synovial lining of the joint (sometimes resulting in effusion) is common in symptomatic OA as is weakness of the supporting ligaments and muscles.

The OA process affects all structures within a joint, including the synovial lining and the subchondral bone. When sensitive MRI techniques are used synovitis is found to be almost ubiquitous in painful knee OA. When ultrasound is used, synovitis is seen in up to 45% of patients with painful hand OA. Many current treatments for OA are thought to target the synovium e.g. NSAIDs and this may be why they are effective. Changes in the subchondral bone are also common on MRI and associated with pain.

Assessment should take into account the patient's concerns and understanding of their joint symptoms. It is important to evaluate the effects that their OA has on their quality of life, function and mood. Anxiety and depression are common in patients with OA and will affect their mood and response to pain so identifying and treating associated anxiety and depression is important.

The initial approach centres on self-help and patient- driven treatments and should be started in primary care. Exercise, and weight loss where appropriate, should be recommended.

All available treatments for OA are directed at symptom control as there are not yet any widely accepted drugs that can affect the structural progression of OA. Current guidelines recommend a combination of non-pharmacological and pharmacological management. Footwear should be shock-absorbing with good arch support for those with knee or hip OA.

Timing of analgesia is important. Advise patients to use analgesia before they exercise, so adherence to exercise routines is maintained. Consider long-acting preparations so pain relief is at a maximum throughout the most symptomatic period of the day or night.

Paracetamol and topical NSAIDs should be tried before oral NSAIDs. Topical NSAIDs are effective in the short-term and are not associated with systemic toxicity. Oral NSAIDs should be used at the lowest effective dose for the shortest possible time. All oral NSAIDs and COX-2 drugs should be prescribed with a PPI. There is less trial data on opioids than on NSAIDs but there is evidence for their efficacy. Patients who have moderate to severe pain that is not responding to oral analgesics or anti-inflammatories may benefit from intra-articular corticosteroids.

A recent large meta-analysis of all chondroitin and glucosamine trials has not demonstrated any benefit in either pain reduction or structural modification.