

Arthritis in Fingers

Summary

Osteoarthritis (OA) of the fingers is a degenerative condition affecting the cartilage, bone and ligaments causing pain, stiffness, weakness and deformity. A trial of nonoperative management is recommended for mild and moderate disease and provides at least short-term pain relief in ~50% of patients. Surgery is an option if this fails or in severe disease.

Definition

Osteoarthritis (OA) of the fingers is a degenerative condition affecting the cartilage, bone and ligaments causing pain and dysfunction. The metacarpophalangeal (MCP) joint, proximal interphalangeal (PIP) joint and distal interphalangeal (DIP) joint can be affected.

Causes

About **50% of hand OA is genetically determined**. Finger mobility and use means the joints are susceptible to injury and overuse, which can damage cartilage. **Surprisingly, a history of heavy work is associated with a lower rate of OA.**

Risk Factors

Age and family history are the strongest risk factors. Women are affected twice as often as men. Obesity is also a factor.

Symptoms

Symptoms include:

- **Pain and stiffness, usually worse at the end of the day,** after use;
- Reduced grip strength;
- Dysfunction interfering with activities of daily living;
- Bony enlargements around the joints;
- Other deformities including angled fingers and inability to straighten joints.

Thumb arthritis is also a common problem.

Diagnosis

Finger OA is **diagnosed with history and examination**. **X-rays confirm the diagnosis** with joint space narrowing, bone sclerosis, erosions and osteophytes being the common features. DIP joints are most commonly affected and MCP the least. There is only a weak link between the severity of symptoms and changes seen on x-ray, meaning there are other factors contributing to pain.

Examination findings include:

- Heberden's and Bouchard's nodes, the names given to the bony enlargements at the DIP and PIP joints;
- Tender swelling of the affected joints;
- Reduced range of motion;
- Typical deformities including deviated fingers;
- Reduced grip strength.

Treatment

A trial of nonoperative management is recommended for mild and moderate disease. This includes;

- **Nonsteroidal anti-inflammatories** (NSAIDs: Ibuprofen or similar). A topical NSAID may have less side effects;
- **Activity modification** (Using devices such as jar openers and bigger grips on utensils can avoid loading joints);
- Rigid **splints** can be useful for pain relief, but are cumbersome. Neoprene **sleeves may be better tolerated**;
- A **cortisone injection**.

Cortisone injections have been shown to **provide at least short-term pain relief in ~50% of patients**. Combining this with the other nonoperative measures can increase success.

Severe disease is less likely to respond but there are virtually no complications.

If nonoperative measures fail then surgery should be considered. The type of surgery depends on the severity of disease, the joint affected and its range of motion.

- **Joint replacement or arthroplasty is suitable when cartilage damage is severe but the joint has a good range of motion.** Complications are common at 20% with re-operation rates of 5-10%.
- **Fusions are suitable when the joint is already stiff.** Complications are less common.

Prevention

A great resource is the Arthritis Australia website. A healthy lifestyle is the best way to preventative. Dietary supplements such as glucosamine, chondroitin, fish oil and turmeric are popular but the evidence supporting them is poor. Unfortunately, the fingers are used in almost all aspects of hand activities, making it difficult to avoid injury and overuse. The nonoperative measures outlined may reduce symptoms and slow progression enough that surgery is not required.

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