

Dupuytren's Disease

Summary

Dupuytren's disease, also called Viking's disease, is a genetic disorder causing flexion contractures of the fingers. It is a proliferation of fibrous tissue (collagen) in the palmar fascia, a normal layer in your hands. It slowly progresses and treatment is not usually considered until you have a problem with function.

Definition

Dupuytren's disease is a **genetic** disorder causing flexion contractures of the fingers. It is also called **Viking's** disease. Dupuytren's is a proliferation of fibrous scar tissue (collagen) in the palmar fascia, a normal layer in your hands.

Causes

Dupuytren's is a proliferation of fibrous scar tissue (collagen) in the palmar fascia, a normal layer in your hands. It usually **slowly progresses and eventually the collagen forms cords**. These cords are between the skin and underlying normal tendons. The **cords attach to the skin, joints and flexor sheath**, that surrounds the tendons, and it is the tethering to these structures that **causes the contracture**.

Risk Factors

Genetics causes 80% of Dupuytren's Disease and it is very common in those with northern European descent. Family history gives you a 30% chance of developing Dupuytren's. It commonly presents in your 50's. If you are young, have it in both hands and have it in your feet then you are likely to suffer worse disease.

Symptoms

Symptoms include:

- Pits and nodules in the palm;
- Thickened cords develop later that start to flex the joints of fingers;

Eventually the contractures (flexed joints) cause dysfunction, including;

- Catching your finger on pockets;
- Poking yourself when washing your face.

Symptoms such as pain are very rare, but Dupuytren's is **associated with** other painful conditions such as **carpal tunnel syndrome and trigger finger** that can be treated at the same time.

Diagnosis

Dupuytren's is diagnosed with a combination of history and examination. **Investigations are rarely required.**

Examination findings include:

- Pits, nodules and cords;
- Joint contractures;
- It is important to measure the extent of proximal interphalangeal (PIP) joint contracture as well as joint disease, as both these make an excellent outcome less likely.

Treatment

Both **percutaneous fasciotomy and open fasciectomy** are proven treatments for Dupuytren's.

- **Not usually considered until you have a functional problem.**
- **Considered beneficial when contracture $\geq 30^\circ$.**
- **Complications increase when contracture $\geq 60^\circ$.**
- Lying your hand flat on the table is a good indicator of when treatment may be beneficial.
- **Straightening the metacarpophalangeal (MCP) joint is more successful than the PIP joint.**

Percutaneous Fasciotomy:

- Needles are used to divide the Dupuytren's cord
- No hospital admission, with procedure done in rooms
- Faster recovery with ~ 2 hand therapy visits required
- Splint at night for 3 months to keep the joints straight
- Suitable in most cases of mild – moderate Dupuytren's
- Less reliable correction of deformity
- **High recurrence rate of ~80% at 5 years ($\geq 20^\circ$ in treated joint)**

Open fasciectomy:

- Dupuytren's disease is surgically excised
- Day surgery, occasionally overnight
- **Longer recovery with weekly hand therapy often required**
- Plaster for 1 week postoperatively, then splint at night for 3 months
- Suitable in all cases of mild – severe Dupuytren's
- **More reliable correction of deformity**
- Neurapraxia, a nerve injury that resolves is common
- **Low recurrence rate of ~20% at 5 years ($\geq 20^\circ$ in treated joint)**

Most complications are similar for both procedures. Delayed wound healing happens in $\leq 20\%$ of cases. In severe disease it is common to suffer skin tears or not be able to close the skin. I commonly leave these wounds open and they heal in ≤ 3 weeks. True infection is rare but wounds can look contaminated while healing. Cutting nerves and arteries is rare and would be repaired if recognised. Nerve and artery injury is more common in secondary procedures with rare reports of necrosis when both arteries of a finger have been injured.

Prevention

There is an Australian trial underway, investigating whether radiotherapy prevents the progression of Dupuytren's. The existing studies are not good enough to recommend it, and there are potential side-effects. **Injecting a rheumatoid arthritis drug, Adalimumab,** has shown promise in a clinical trial in the UK. It is not accepted or available as a treatment yet. Hand therapy, stretching and splinting has been investigated extensively. One study shows a tendency toward improvement, but patients had to wear a splint for 20 hours a day for 3 months.

