DUPUYTREN'S DISEASE

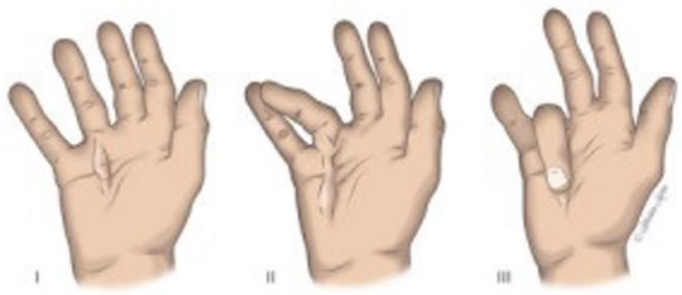
Dupuytren's disease was described in 1831 by Baron Guillaume de Dupuytren. It manifests as the thickening and transformation of the tissue layer between the skin and tendons on the palmar side of the fingers and hand (palmar fascia), restricting finger extension.

Etiology

The cause of Dupuytren's disease is unknown. The involvement of other family members, with varying severity, suggests a genetic origin. It is more common in men, diabetics, and chronic alcohol consumers. Prolonged manual labor is not responsible for Dupuytren's disease, although it can develop after minor trauma.

Clinical Presentation

Diagnosis is clinical. Thickening of the fascia can lead to palpable nodules and fibrous contractures that, when contracted, limit finger extension. The skin may be infiltrated. Dupuytren's disease is painless and typically affects the 4th and 5th fingers but can involve the entire hand. Finger closure remains possible as the tendons are intact.
There are rarer locations for this disease: the feet (Ledderhose disease), the male genitalia (Peyronie's disease), or the back of the fingers (knuckle pads). The earlier the disease onset, the more significant the involvement.



Stages of Dupuytren's Disease

Progression

The progression is unpredictable and often occurs in stages. The most common evolutionary pattern is long-term recurrence, regardless of treatment.

Treatment

There is no medical treatment. Surgical treatment involves cutting the contractures (fasciotomy) or removing the diseased tissue (fasciectomy). The goal is to restore finger extension.
Early or mild forms are not treated unless they cause inconvenience. However, waiting too long can make treatment more difficult and riskier, with a higher risk of recurrence. The involvement of the 5th finger or finger joints (interphalangeal) is more challenging to treat. Recurrence after surgery is relatively common, and one or more reoperations may be necessary, spaced over months or years.

When and How to Operate?

Surgery can be considered when the patient can no longer lay their hand flat on a table (Top table test). Treatments vary according to the nature and extent of the lesions (extension deficit, skin condition). Complete extension may not always be possible.
There are two types of surgical treatments:

- **Percutaneous Needle Fasciotomy:** Without opening the skin, the contracture is "broken" at several levels using a needle, leading to finger extension like an arch opening after the string is cut. This technique is indicated for superficial and thin contractures and cannot be offered to all patients. Postoperative recovery is straightforward as there is no scar. However, recurrences are more frequent. It is possible to repeat this procedure.
  The injection of Xiapex® at the cord level shows promising results with similar indications.

Percutaneous Needle Fasciotomy

- **Fasciectomy:** Diseased tissues are removed through zigzag skin incisions (to prevent skin contractures). In severe forms, the wound may be left partially open, with skin grafts or flaps performed. This technique is necessary when there is significant tissue invasion.

Fasciectomy

Postoperative Care:

For several weeks, an extension splint should be worn three times a day for an hour or at night if well-tolerated. This splint is made postoperatively by the occupational therapist after dressing control, which should be minimal. Rehabilitation is often necessary to regain finger flexion.

Complications

Common hand surgery complications:

Nosocomial infections, Hematoma, Sudeck's atrophy or complex regional pain syndrome (a "dysfunction" of the autonomic nervous system controlling pain), Anesthesia-related accidents

Specific Dupuytren's disease complications:

- Post-operative pain
- Finger tingling (nerve irritation due to nerve dissection for removing diseased tissues may persist for weeks; rarely, this can be due to nerve section)
- Incomplete results (more likely in severe or advanced forms)
- Recurrence (unpredictable and not uncommon)
- Amputation (a significant risk, mainly in multiply operated forms, especially on the 5th finger)