DR REBECCA AYERS
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DUPUYTREN'S DISEASE

Dupuytren's disease is named after French surgeon Baron Guillaume Dupuytren who practised in Paris in the 18th century.

What is it?

It is a disease of the fascia of the hand; fascia is made of collagen fibres and forms bands of connective tissue that run beneath the skin of the palm and fingers, this binds the skin of the palm and fingers to underlying structures, such as tendons and bones, and aids in grip. In people with Dupuytren's disease (DD) this fascial layer becomes thickened and forms nodules beneath the skin. Over time the nodules may extend to form a cord. Sometimes there are little pits, where the skin becomes tethered to the deeper tissue.

The cords prevent the fingers from being able to straighten completely. Over time the contractures of the fingers can become quite severe and the finger can become fixed in a bent position. Sometimes the nodules can be tender, although this tends to be a temporary phenomenon.

People struggle to place their hands flat, gets their hands into tight spaces, shake hands, wear gloves, put their hands in pockets etc….

Sometimes there is no progression beyond the nodule stage, however in about a third to a half of people the Dupuytren's disease tends to develop slowly, over months and years. It is hard to predict how significant your DD will become.

Some people have severe DD that develops at a young age, progresses quickly and may have a high rate of recurrence following treatment. Such people tend to have a strong family history and have DD affecting multiple fingers. They may also develop DD at locations other than their digits: nodules on the back of their knuckles (Garrod's pads), thickenings on the soles of their feet (Ledderhose disease) or along the shaft of their penis (Peyronie's disease).

Why does it occur?

The cause is unknown but is more common in people with Celtic or Northern European ancestry. It occasionally appears after trauma to the hand or wrist. It occurs more commonly in diabetics and those on anti-epileptic medication.

Is there a cure?

There is no cure. Treatments may correct the contractures of the fingers but the DD may reappear in he operated fingers or arise in uninvolved digits.

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What are the treatment options?

There are a number of different treatment options, for different stages in the disease.

Surgery

The classical and most common treatment option remains surgery. Surgery is suitable for all patients with joint contracture and provides reliable correction of the deformity.

It is usually possible to correct contractures at the big knuckle joints of the hands but contractures within the fingers may be impossible to correct completely, especially if the finger has been bent down for a long period of time.

Usually the DD is removed via incisions in the palm or finger. Sometimes a skin graft is required to reduce the risk of recurrent Dupuytren's disease.

Steroid injections

Steroid injections to treat painful or tender nodules may reduce discomfort in some (about 50%) patients but will not alter the course of the disease.

Radiotherapy

Radiotherapy is a treatment option that may be suitable for mild DD before there are thick cords or significant contractures. The aim of treatment is to prevent the development of contractures. There is not a great amount of published literature about radiotherapy; the effectiveness of the treatment and long-term side effects are unknown. Short-term side effects include redness, itchy skin, and peeling of skin. Possible long-term effects could include the development of cancers or difficulty healing in areas of radiation treatment.

Collagenase injection

Injection of an enzyme (collagenase) aims to dissolve part of the cord and then a manipulation of the cord is performed under local anaesthetic. The cord breaks and the bent finger should become straight. This option appears effective in certain patients but long-term data regarding recurrence is still awaited. It has the benefit of not requiring an operation, however it is not suitable for every kind of Dupuytren contracture and sometimes more than one injection is needed to improve the contracture.

Needle aponeurotomy

Sometimes the cord can be divided under local anaesthetic very simply. The finger is then manipulated out into a straighter position. This is suitable for older people, as the rate of recurrence is very high. This procedure has increased risk of damage to nerves and vessels.

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