

Dupuytren's Contracture Surgery

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Introduction

Dupuytren's contracture is a fairly common disorder of the fingers. It most often affects the ring or little finger, sometimes both, and often in both hands. The disorder may occur suddenly but more commonly progresses slowly over a period of years. The disease usually doesn't cause symptoms until after the age of 40.

Related Document: A Patient's Guide to Dupuytren's Contracture

This guide will help you understand

- what surgeons hope to achieve
- what happens during the operation
- what to expect after the procedure

Anatomy

What part of the hand is affected?

The palmar fascia lies under the skin on the palm of the hands and fingers. This fascia is a thin sheet of connective tissue shaped somewhat like a triangle. It covers the tendons of the palm of the hand and holds them in place. It also prevents the fingers from bending too far backward when pressure is placed against the front of the fingers. The fascia separates into thin bands of tissue at the fingers. These bands continue into the fingers where they wrap around the joints and bones. Dupuytren's contracture forms when the palmar fascia tightens, causing the fingers to bend.

The condition commonly first shows up as a thick nodule (knob) or a short cord in the palm of the hand, just below the ring finger. More nodules form and the tissues thicken and shorten until the finger cannot be fully straightened.

Related Document: A Patient's Guide to Hand Anatomy

Rationale

What is the goal of surgery?

Many cases of Dupuytren's contracture progress to the point where surgery is needed. The goal of surgery is to remove the diseased fascia, allowing the finger to straighten out again. By removing the tight cords and fascia, the tension on the finger is released. In some cases, grafting extra skin in the area close to the incision gives the finger more flexibility to straighten.

Preparation

How should I prepare for surgery?

The decision to proceed with surgery must be made jointly by you and your surgeon. You need to understand as much about the procedure as possible. If you have concerns or questions, you should talk to your surgeon.

Once you decide on surgery, you need to take several steps. Your surgeon may suggest a complete physical examination by your regular doctor. This exam helps ensure that you are in the best possible condition to undergo the operation.

On the day of your surgery, you will probably be admitted to the hospital early in the morning. You shouldn't eat or drink anything after midnight the night before.

Surgical Procedure

What happens during the operation?

Surgery can last up to 90 minutes. Surgery may be done using a general anesthetic (one that puts you to sleep during surgery), or a local anesthetic (one that only numbs the hand). With a local

anesthetic you may be awake during the surgery, but you won't be able to see the surgery.

Once you have anesthesia, your surgeon will make sure the skin of your palm is free of infection by cleaning the skin with a germ-killing solution. An incision will be made in the skin. Several types of incisions can be made, but yours will most likely be made along the natural creases and lines in the hand. This will help make the scar less noticeable once the hand is healed.

Once the palmar fascia is exposed, it will be carefully separated from nerves, arteries, and tendons. Special care is taken not to damage the nearby nerves and blood vessels.

Then your surgeon will remove enough of the palmar fascia to allow you to straighten your finger. Once the fibrous tissue is removed, the skin is sewn together with fine stitches.

A skin graft may be needed if the skin surface has contracted so much that the finger cannot relax as it should and the palm cannot be stretched out flat. Doctors graft skin from the wrist, elbow, or groin. The skin is grafted into the area near the incision to give the finger extra mobility.

Complications

What might go wrong?

As with all major surgical procedures, complications can occur. This document doesn't provide a complete list of the possible complications, but it does highlight some of the most common problems. Some of the most common complications following surgery for Dupuytren's contracture are

- anesthesia
- infection
- nerve damage

Anesthesia

Problems can arise when the anesthesia given during surgery causes a reaction with other drugs the patient is taking. In rare cases, a patient may have problems with the anesthesia itself. In addition, anesthesia can affect lung function because the lungs don't expand as well while a person is under anesthesia. Be sure to discuss the risks and your concerns with your anesthesiologist.

Infection

Infection of the incision is one possible complication after surgery. Therefore, check your incision every day as instructed by your surgeon. If you think you have a fever, take your temperature. If you have signs of infection or other complications, call your surgeon right away.

Nerve or Blood Vessel Damage

There are many nerves and blood vessels in the hand. It is possible, though uncommon, that these structures can be injured during surgery. If an injury occurs, it can be a serious complication. Injury to nerves can cause numbness or weakness of the hand. Repairing an injury to the blood vessels may require additional surgery.

After Surgery

What happens after surgery?

Your hand will be bandaged with a well-padded dressing and a splint for support after surgery. The splint will keep the hand open and the fingers straight during healing. Your surgeon will want to check your hand within five to seven days. Stitches will be removed after 10 to 14 days, though most of your stitches will be absorbed into your body. Because many nerves are found in the hand, you may have some discomfort after surgery. You will be given pain medicine to control the discomfort.

You should keep your hand elevated above the level of your heart for several days to avoid swelling and throbbing. Keep it propped up on a stack of pillows when sleeping or sitting up.

Rehabilitation

What should I expect during my recovery?

Physical or occupational therapy sessions may be needed for up to six weeks. Therapy visits usually include heat treatments, soft tissue massage, and vigorous stretching. Therapy can make the difference in a successful result after surgery. These sessions are important in limiting the buildup of scar tissue, preventing the return of contractures, and getting the most benefit from surgery.

You'll gradually be able to put your hand to use. You should be able to straighten all joints within four to eight weeks, sometimes a little longer.

You'll probably need to wear a splint at night for up to six months after surgery. It is used to keep the joints straight, preventing new contractures from forming. Take all medicine exactly as prescribed by your surgeon, and be sure to keep all follow-up appointments.

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