

Surgical Skills Series - Ingrown toenail removal with phenol

Maurice Brygel

Correspondence:

Associate Professor Maurice Brygel, M.B.B.S. D.A. (LOND.) F.R.A.C.S

Masada Hospital

Melbourne Hernia Clinic

26 Balaclava Road

St. Kilda East 3183

Victoria, Australia

PH: + 61 3 9525 9077

Email: mbrygel@netspace.net.au

Received: 2018; Accepted: 2018; Published: September 1, 2018

Citation: Maurice Brygel. Surgical Skills Series - Ingrown toenail with phenol. World Family Medicine. 2018; 16(9): 36-38.

DOI: 10.5742/MEWFM.2018.93493

Introduction



Left to right: Surgeons Mr. Maurice Brygel and Mr. Charles Leinkram

This is the first of an Instructive series on surgical skills for General Practitioners / Family Physicians and Surgical students.

INGROWN TOENAIL TREATMENT - Conservative, Nail Edge Removal, with Phenol & Wedge Resection treatment



Figure 1: Ingrown toenail showing nail edge digging into skin and causing bleeding and inflammation

This painful condition mainly affects the big toe on one or both sides. The nail edge grows into and irritates the overlying skin. An infection may then supervene. The pain or infection may continue to recur unless the cause is permanently removed.

This condition is most common in males, then female teenagers but can occur at any age. Possibly tight footwear, sweaty socks, the foot growing rapidly, all contribute. This combined with incorrect trimming of the nail, results in a spike from the nail edge burrowing into the overhanging skin causing irritation, pain and infection. In older patients particularly, underlying conditions such as diabetes, poor blood supply, fungal disease or trauma may also be factors.

Occasionally other toes may be effected.

Conservative Treatment Of Ingrowing Toenails

There are a multitude of methods including massaging the skin fold away from the nail edge with a cotton bud and elevating the nail edge with a cotton or gauze pledget. Many mistakenly trim the nail edge down whereas it should be trimmed transversely and elevated. Despite this the problem may persist causing pain and infection.

Operative Treatment For Ingrowing Toenail

Continuing pain or infection may be indications for surgery. Antibiotics for infection may give only temporary relief as the underlying cause is not removed. When conservative methods are not satisfactory surgical intervention is advised.

Possible risks will also be discussed. It is rare to have any severe problems.

Females may be concerned that the nail could appear narrower.

Before the procedure the patient is given post operative instructions and the costs explained

Removal Of The Nail Edge

In the more urgent situation with severe infection just removal of the nail edge under a local anaesthetic nerve block will help overcome the infection. This may give permanent relief in up to 50% if the nail is cared for appropriately following the procedure. However the problem may recur.

The Use Of Phenol

This technique still requires a nerve block and removal of the nail edge surgically. It can be done without actually cutting any skin.

It is simpler to perform than a wedge resection particularly for the less experienced.

The phenol is acidic and care has to be taken not to burn the adjacent skin.

There may be less post operative pain than wedge resection.

Should recurrence occur then wedge resection can be performed.

There is possibly a higher rate of recurrence and a higher post operative infection rate.

Wedge Resection

Thus, it is recommended by most surgeons for a permanent cure, to perform an operation titled "Wedge Resection". This removes permanently the nail edge and the corresponding nail bed called the germinal matrix. The nail grows from this matrix.

There may be some pain following this for a day or two.

It means the nail will be permanently a little narrower. Seldomly the nail may fall off or be deformed. This is more likely if there is also a diseased nail.

The Procedure may be done at a First Visit.

The patient should be advised to be accompanied by a driver and have transport home, They should also be given information regarding costs. If there is a specific medical condition or they are the fearful fainting type this should be mentioned. You should also obtain a full medical history including medications, previous operations etc to assess their suitability for the procedure.

Anaesthesia:

Wedge resection is usually performed under Local Anaesthesia and is termed "a digital block" in the office. Hospitalization or a general anaesthetic is seldom required.

The Local Anaesthetic is injected into each side of the base of the toe. This may sting but is usually tolerated well. The injection takes a few minutes to take effect. The patient can just relax and talk or read whilst waiting. The toe goes numb but does not completely lose the sensation to touch. The effectiveness is tested prior to proceeding. Occasionally an extra injection is required as onset may be slower when there is an infection present. There is no pain during the procedure.

The Operation:

A rubber band tourniquet is placed around the base of the toe to prevent bleeding during the procedure. The operation itself only takes a few minutes. One or both sides of the same toe may be treated. Suturing is not required.

The Bandage:

The toe is dressed with a non-sticking paraffin gauze (making the dressing easier to change). Dry gauze and a crepe bandage are then applied firmly to prevent bleeding overnight.

The surgeon checks the circulation in the toe to ensure that the bandage is not too tight. The patient is able to walk on their heel and be driven home but should not drive. The patient should be given a bootie to wear for cleanliness.

Antibiotics:

If antibiotics have been commenced, the course should be continued to gain maximum effect. Antibiotics however, are not usually prescribed at the time of operation because removal of the causative nail edge is effective.

The Foot is to be elevated both in the car and on arrival home.

This prevents bleeding and also reduces any throbbing. Occasionally blood seeps through the bandage. Should this occur the foot should be elevated and pressure applied with a towel.

Pain killers such as paracetamol and a codeine are used. Panadol, Panadeine or Panadeine Forte, are usually sufficient. Sometimes there is some throbbing pain at night but by the next day this usually subsides. If there is intense pain on the night of the procedure, the bandage can be loosened. The following day the patient is able to walk around on their heel quite freely. They must not get the bandage wet.

Review:

The patient should call the surgeon the following day on the number provided. This confirms that all has gone well and there is no need for any urgent appointment.

They should be reviewed 2-3 days following the procedure when the dressing is changed. This can cause some slight discomfort, so a simple pain killer Panadol or Panadeine can be taken ½ hour before arrival at the office. To remove the dressing, the bandage is soaked off. There are no stitches to be removed. Following this a light dressing is applied and is usually reviewed again in a few days time.

The patient should be given instructions on how to treat the nail. Whilst the wound is still healing, and not completely dry, it is better covered with a bandaid rather than have sweaty socks rubbing against it. A shoe cannot be worn for 3-4 days.

It is unusual for recurrence or another infection to occur. If tiny remnants of nail are left free this can be a source of recurring discharge.

Nail Care:

The nail is trimmed transversely instead of the into the skin. As the nail grows the edges should be regularly elevated using a cotton bud as should be demonstrated to the patient.

Conclusion

Ingrown toenails are not a serious condition. They can however be quite painful and disabling. Usually surgical treatment is successful. The use of Local Anaesthetic makes the procedure comparatively simple. There is a small risk of the problem recurring - possibly 4-10%