Hands On Surgical Skills Workshops for Primary Care doctors

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Introduction

There has been an upsurge in demand for training and continuing education worldwide and no more so than in Australia. Associate Prof Maurice Brygel has developed and presents a number of workshop skills programs which cater for these needs.

They emphasise clinical diagnoses but are centred around giving the participants the technical skills to carry out many office based procedures which are within the realms of primary care doctors. At the same time they are used to fulful continuing education obligations.

Mr Brygel is featured in the front centre of the group with his grandson Gil Zelwer sitting in for work experience

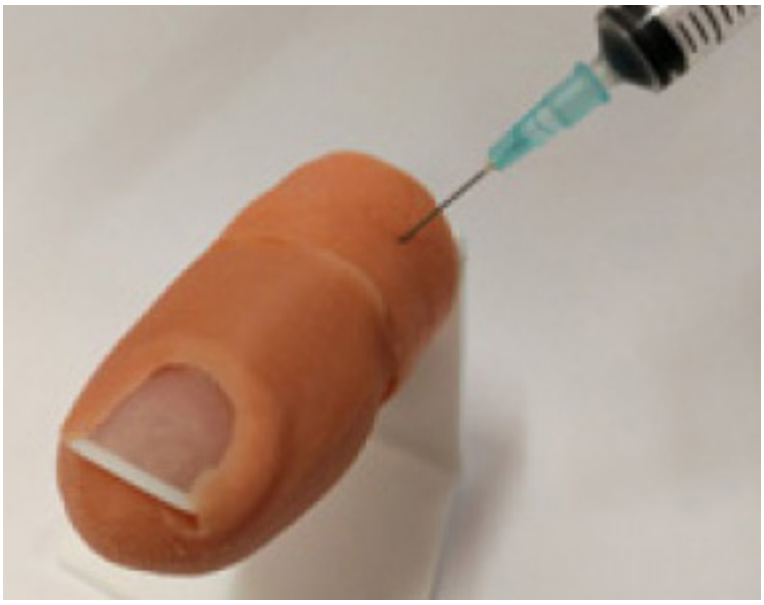

Figure: **Demonstration using models**

Sessions emphasise clinical diagnoses but are centred around giving the participants the technical skills to carry out many office based procedures which are within the realms of primary care doctors. At the same time they are used for accreditation purposes. This training is often neglected in hospital training and the doctor is thus thrown in at the deep end.

Now as a result private institutions as well as colleges have initiated programs to overcome the deficit.

These workshops are conducted depending on the sponsor at specifically designed skills laboratories or at conference venues such as hotels.

Models such as artificial toes and pork bellies are used to simulate the real thing.

The courses include management of ingrowing toe nails, skin cancer, lacerations, wounds, foreign bodies and a myriad of knot tying and suturing techniques all the skills required for the different procedures are catered for – such as informed consent acheiving haemostasis, post operative care and management of complications.

Commercial organizations are playing an increasing role in Australia as doctors seek extra skills and revenue for example through aesthetic medicine.

Participants include:
1. Medical students where suturing techniques are foremost to enable suturing of lacerations.
2. Establish medical Practioners who wish to update and expand their skills as well as fulfilling continuing medical requirements.
3. A very specific group to Australia are International medical graduates (I.N.G) These are qualified doctors from around the world who migrated to Australia (in large numbers) and must pass written and oral examinations as well as fulfil other requirements of suitability. This would then entitle them to practice in Australia. In Australia Allan Roberts of ARIMGSAS conducts comprehensive training programs with a high rate of success of enabling doctors to enter into the medical workforce www.arimgsas.com.au .
4. Surgical trainees and Surgeons. These need to practice and learn new techniques on models in sophisticated laboratories before applying their knowledge to humans.

Maurie Brygel is a general surgeon in Melbourne who designs and conducts these course for different bodies throughout Australia, including James Cook University, Monash University – division of General practice, Notre Dame Medical School and RACS and Bond University.

Maurice together with Charles Leinkram is director of the Melbourne Hernia Clinic. He together with Mr Leinkram have performed over 20,000 operations.

Their website www.hernia.com.au Melbourne Hernia Clinic is devoted to hernia education and our readers are welcome to visit it. There is also a comprehensive section on Surgical Office Skills for the Practioner.

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

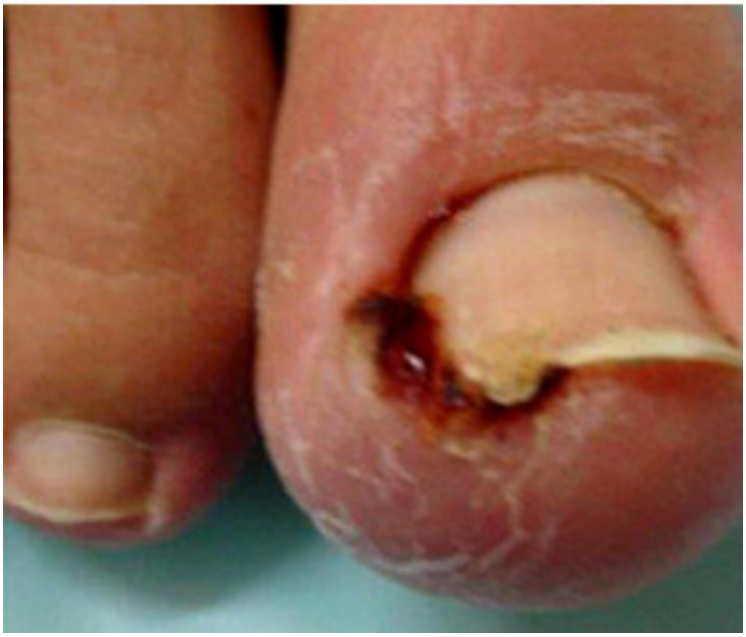

Figure 1: Ingrown toenail showing nail edge digging into skin and causing bleeding and inflammation

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. The phenol must be washed off within a minute or two.

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.

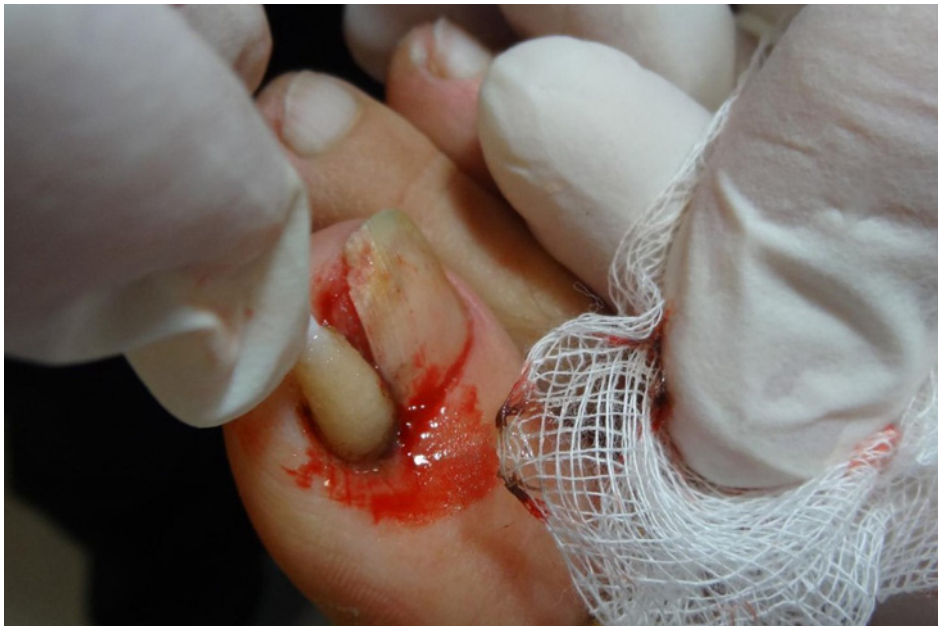

Figure 2: Phenol treatment

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.

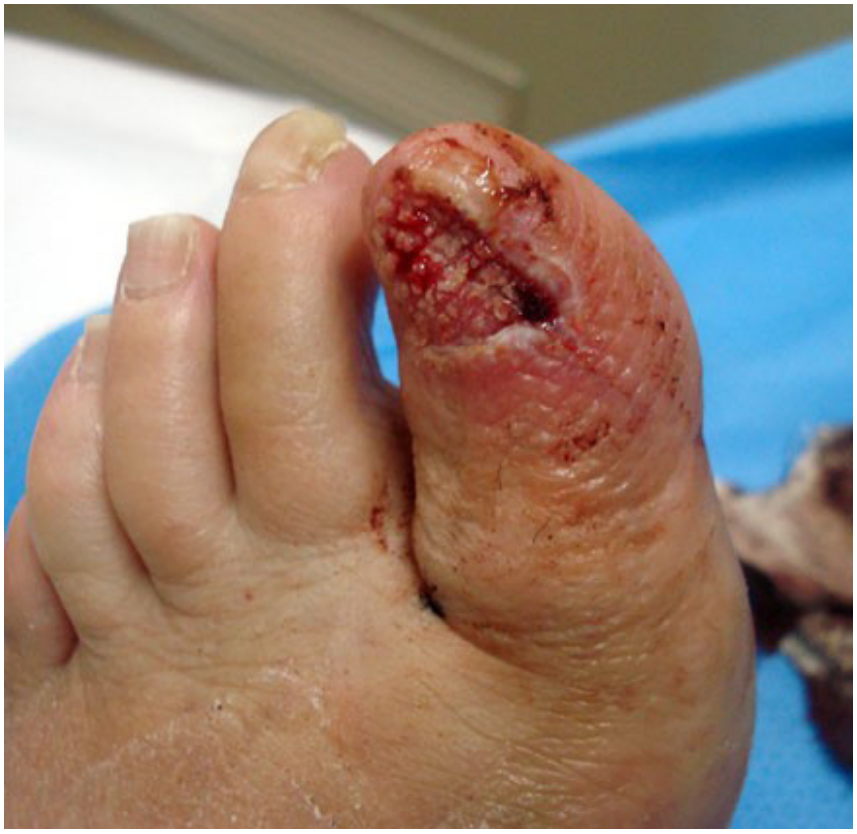

Figure 3: Nail avulsed

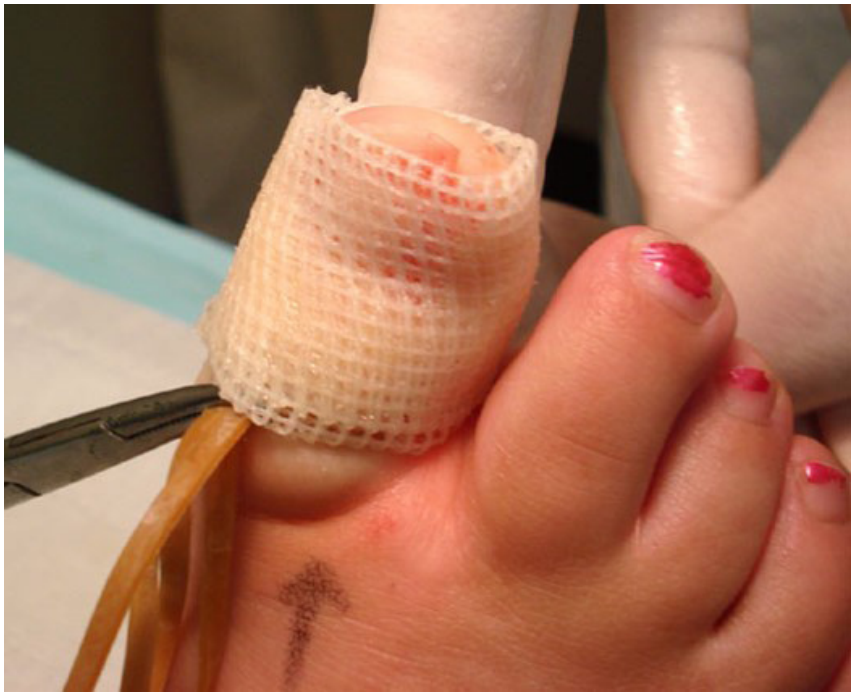

Figure 4: Dressing

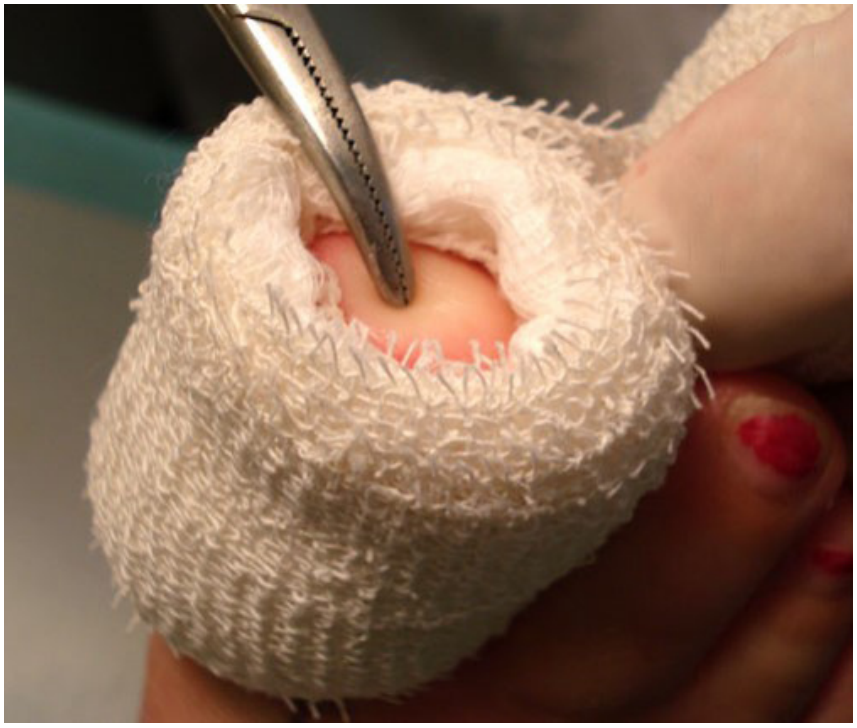

Figure 5: Checking capillary circulation

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 theirr 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.

Post operative care:
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.

Workshops

In our workshops on ingrowing toenails we demonstrate and practice digital block and other simple methods of achieving local anaesthesia such as incremental injection with a very fine needle

The use of these techniques is applied to a sample of other conditions such as subungual haematoma, koilonychia, fungal Infection's and paronychia abscess

Included with wedge resection are
1/ conservative management
2/removal of the nail edge
3/ complete removal of the nail
4/ phenolizattion
5/ wedge resection
6/ zadek operation

Also - Informed consent,treatment indications,difficult cases, bandaging.post operative care, managing problems and billing.

Videos showing digital block and a detailed wedge resection are included

We invite you to register specifically for this course, the surgical skills course and skin cancer courses

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%

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