INGROWING TOE NAIL

Pages with reference to book, From 21 To 23

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The condition of in growing toe nail affects mainly the big toe. It occurs commonly in the age group 15 - 45 years and is thrice as common in men as in women. Surgeons, nurses, manicurists, chiropodists and barbers lay claim to its treatment. Surgeons have employed chemicals, cryoprobes and the scalpel. Ablative surgery is directed either to removal of the nail plate and soft tissue, or the germinal matrix. The commonest indication warranting treatment for in growing toe nail is repeated infection with resultant pain and disability. Two varieties of surgical treatment are presented in this paper: (i) An operation on the nail plate and soft tissues which is usually offered as a first procedure and (ii) an operation on the nail bed and germinal matrix which is reserved for symptomatic recurrences.

REQUIREMENTS

A. Instruments to be autoclaved and packed

— one No. 3 Bard Parker Knife handle
— one pair of Mayo dissecting scissors
— one Volkmann's curette
— two fine tipped haemostats
— one Kocher’s artery forceps
— One needle holder
— one kidney tray
— two drapes
— 4x4 gauze swabs
— cotton-wool
— 2 inch gauze bandage

B. Disposables

—. No. 15 blade
— 3/0 silk matrix on a tapercut 25 mm needle
— fine rubber tubing to be used as a tourniquet
— 10 cc syringe
— 25 and 20G needles

C. Solutions

— 2% Xylocaine
— distilled water

PROCEDURE

Place the patient comfortably on the couch and reassure. Clean the forefoot with betadine solution, especially the web spaces. Drape the foot so that only the hallux is visible and the rest of the foot is covered. Tie the fine rubber tubing at the base of the hallux tight enough to occlude the arterial supply of the toe. NOTE THE TIME. Using 20G needle and syringe, prepare 10 cc of 1% xylocaine. Using 25G needle inject at the base of the hailux all the way down to the bone. WAIT atleast for 3 minutes for the anaesthesia to be effective. For: wedge excision of the nail plate and soft tissues (Figure 2)

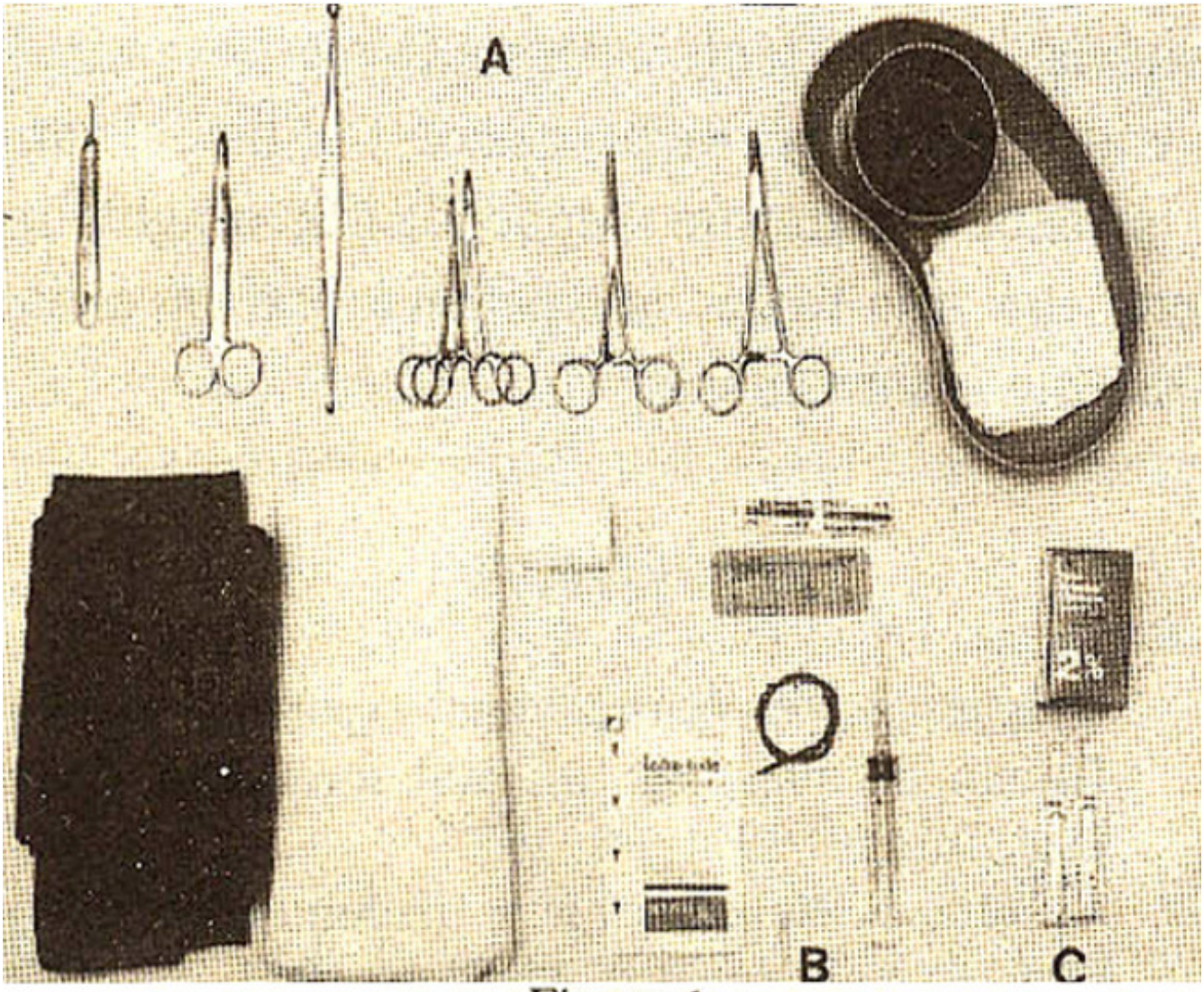
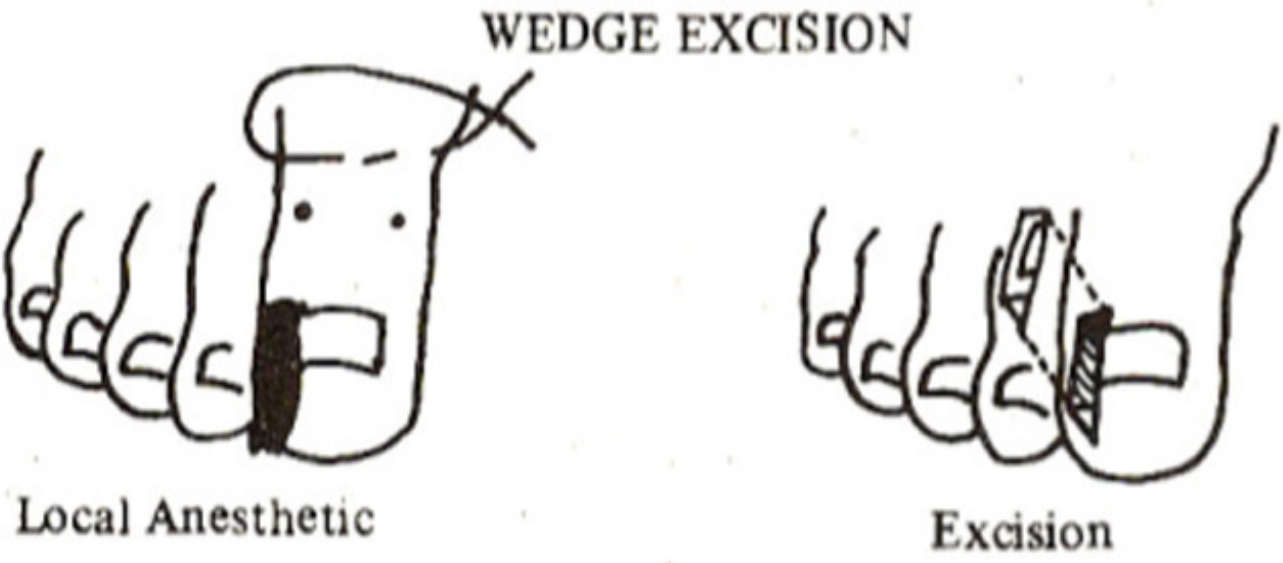


Figure 1.



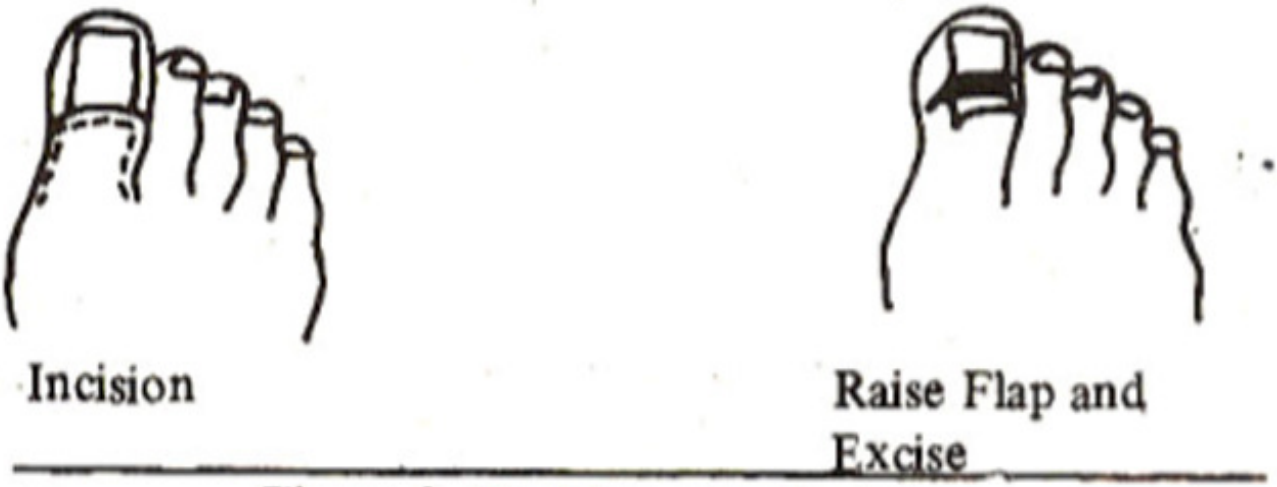
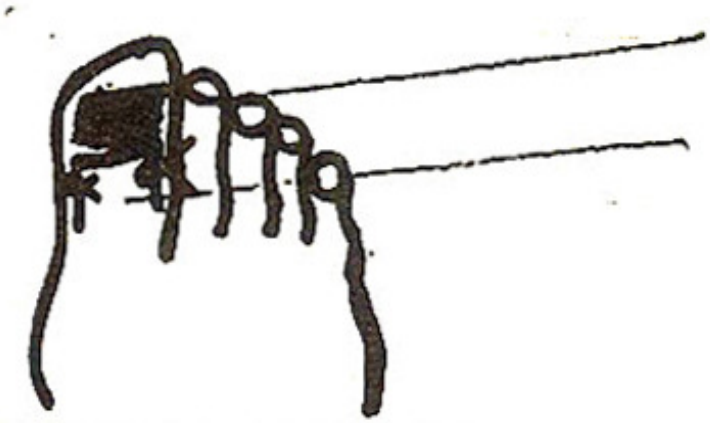


Figure 2. Excision of nail plate.

first split the side of the nail to be excised with a sharp scissors upto the proximal nail fold. Using a kochers forceps, grasp the spilt nail and avulse it ensuring that the portion of nail beneath the lunular skin is also removed completely. With a No. 15 blade on a handle, excise a wedge of diseased soft tissue on the side of the avulsed nail. Alternately curette the soft tissue thoroughly with the Volkmanns curette. Apply sofra tulle around the toe and cover it with a 4x4 gauze and sterile cotton wool for absorbing the considerable ooze. Tie a bandage and secure it so that it does not slip off. NOW REMOVE THE TOURNIQUET FROM THE BASE OF THE HALLUX. A safe tourniquet time is 30 minutes. For a ZADIK PROCEDURE or NAIL BED ABLATION (Figure 3)

Excise Nail Bed Down to Periostium after Avulsing Nail.



Wound after Excision of Nail and Nail Bed.

Flap Sutured with Silk 000.

Figure 3. Zadik procedure or nail bed ablation.

the procedure is the same until administering the local anaesthetic. Make two incisions at either end of the proximal nail fold in the axis of the toe. Another incision across the lunula joining the previous two incisions helps lift the proximal skin flap. Put a stay silk suture through the flap to keep it out of the way. Avulse the whole nail which leaves behind glistening white tissue in the proximal half of the wound. This is the germinal matrix. Excise the whole of the glistening white tissue with a No. 15 blade. This excision is right down to the periostium of the terminal phalanx of the hallux. Ensure that the corners of the wound are scraped with the curette so as to avoid recurrence of spikes of nail tissue. Return the flap and put one silk suture on each side to hold the flap and the skin edges together. Dressing is the same as for the previous procedure.

POST OPERATIVE CARE

Advise the patient paracetamol for analgesia. The patient can go home the same day, but should be advised to rest the foot in an elevated position for the first 24 hours. The dressing is removed after 24 to 48 hours and a light bandage applied. The sutures are removed in 7 days.Avoid wearing tight closed shoes for at least one month after the operation.

For comfort some patients need to bathe their foot in hot water daily. There is no harm in this, provided the foot is dried nicely.

COMPLICATIONS

Bleeding can occur. Usually cothpression with a further bandage is all that is required. Infection can occur which responds to hot bath, systemic antibiotic, elevation of the foot and analgesia. Rarely a severe spasm of the digital vessels, as a result of using lignocaine and adrenaline or forgetting to remove the tourniquet may cause gangrene of the hallux. A recurrence rate of appeoxirnately 70% is recorded following nail plate excision as compared with 25% after a Zadik procedure. Recurrences are often symptomless and may not require treatment.

REFERENCE

1. Zadik. F.R. Obliteration of the nail bed of the great toe without shortening. the terminal halanx. J.Bone Joint Surg., 1950; 32B: 66.