

Trephining subungual hematomas

Paul S. Bonisteel MD CCFP FCFP

A patient arrives at the office to complain that she had just visited another health care facility with a painful bruise under one fingernail; the doctor had used a heated paper clip to release the blood from under the nail. On the first attempt, the maneuver did not work; the doctor pushed hard but the paper clip was not hot enough. On the second and final attempt, the paper clip was hot enough but the doctor still pushed overly hard, suddenly penetrating the nail and striking the underlying nail bed. The patient said the technique was “somewhat barbaric” and should be relegated to situations when there is no other choice; for example, if one is miles from the nearest health facility and has to drain the blood immediately oneself.

Discussion

This paper-clip technique is described in surgical texts today.^{1,2} Some of the disadvantages of the technique are illustrated in the scenario above. The clip must be hot enough to burn its way through the nail without the application of pressure. The clip might either be too hot to be held without protective, heat-proof gloves or it might not hold the heat long enough to complete the incision in one step. There is also a risk of using an open flame to heat the clip in a health care facility, where there are potentially flammable liquids and gases nearby. That being said, if the clip is not hot enough, there is a tendency to push a little, which increases the pressure on the already throbbing hematoma and risks a sudden puncture through the nail, plunging the needle into the sensitive nail bed.

Technique

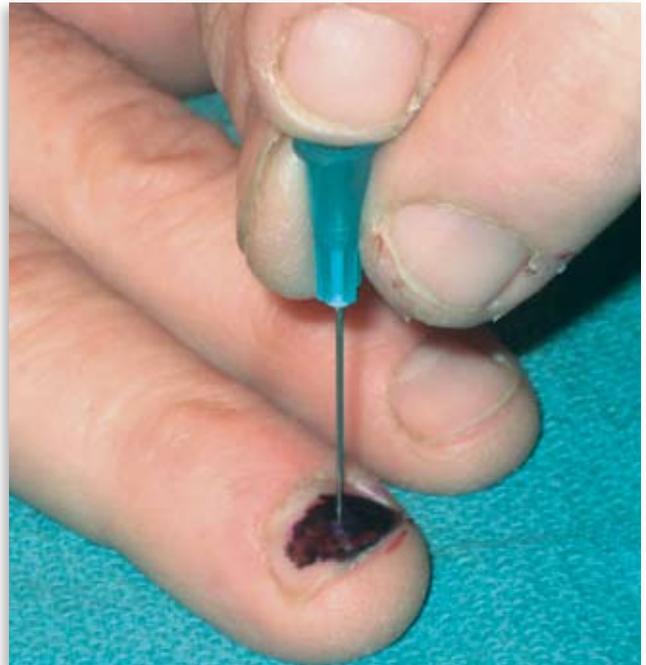
I use a simple but effective technique that I was taught 20 years ago by the late Dr John Ross, Professor of family medicine at Memorial University in St John’s, Nfld. It is as follows:

Choose a sterile, disposable, 23-gauge double-bevel 1-inch needle. Note that when choosing the needle, there is a trade-off between bore size and bevel length. Hold the needle between the thumb and third finger and steady the needle on top of the hub with your index finger. Place the needle over the nail and the hematoma, choosing a position by comparing the landmarks with the corresponding contralateral fingernail so as to avoid

This article has been peer reviewed.

Cet article a fait l'objet d'une révision par des pairs.

Can Fam Physician 2008;54:693



the lunula. With the thumb and third finger, rotate the needle back and forth. The double bevel acts as a drill, slowly penetrating the nail. No pressure needs to be applied to the needle by the index finger. Just as the needle penetrates the nail, a small bead of blood will appear in the drilled hole, telling the operator to slow down and complete the last of the drilling maneuver with extra care to avoid the underlying nail bed.

Small or painless hematomas and hematomas that are already draining need not be trephined. Hematomas confined to the lunula should not be trephined. If you suspect underlying nail-bed injury or fracture of the phalanx, trephining should not be attempted.

I have never had a patient refuse this technique; occasionally patients refuse the hot paper clip out of fear of further injury. I have never experienced a failure with this technique. 

Dr Bonisteel is a family practitioner in New Harbour, Nfld.

Competing interests

None declared

References

1. Edmunds MW, Mayhew S. *Procedures for primary care practitioners*. St Louis, MO: Mosby; 1996. p. 94-8.
2. Roberts JR, Hedges JR. *Clinical procedures in emergency medicine*. 3rd ed. Philadelphia, PA: WB Saunders and Company; 1997. p. 608.