PLASTIC SURGERY

NAIL INJURIES

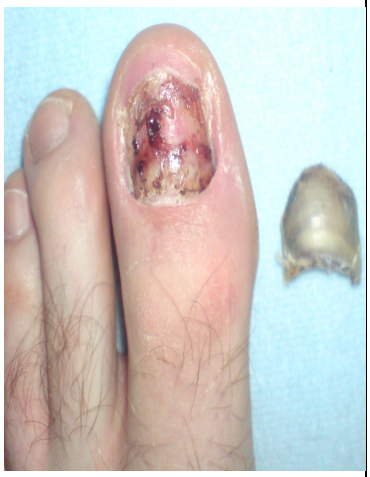
Paediatric Nail-Crushing Injury

It is a common complaint in the minors department that a young child has had their finger and/ or fingernail trapped by a closed door. The keys steps in management are to:

1. Calm the child and parent(s)
2. Assess neurovascular status of finger (vascular compromise is an emergency)
3. Offer analgesia and consider a buddy-splint for pain relief
4. Perform a finger X-ray to assess for fracture or foreign body
5. If open wound, check vaccine status (consider tetanus if a dirty wound) and if antibiotics are required
6. Determine hand-dominance (may not be evident in very young children)
7. Keep the child fasted until it is determined if surgery is to be performed that day (if vascularly intact, surgery may wait until the next morning)
8. Refer to paediatric plastic surgeon on-call
9. Consider non-accidental injury in all cases, document in the clinical notes and for the GP

Traumatic Nail Detachment

After a traumatic event, a portion of the nail or even the entire nail may no longer be adherent to the nail bed. This is most often associated with a minimal amount of bleeding and a moderate amount of pain. This is not an uncommon presentation in the emergency department and should be treated promptly to minimize pain and to improve the cosmetic appearance for the patient**.**



Generally, a visual inspection of the finger or toenail and adjacent structures is all that is necessary to determine the level of detachment.

Occasionally an X-ray examination of the damaged finger or toe may be necessary to determine if the bone has also been damaged in the trauma. If the entire nail is detached from the finger or toe, usually no management can repair, reattach, or replace it.

If there is any damage to adjacent tissues, the nail bed, nail matrix, or the proximal nail fold that could result in scarring, this can be assessed by a plastic surgeon. If a portion of the nail is still adherent to the nail bed, it can be left intact.

The non-adhering portion of the nail should be removed. The usual local precautions to prevent infection should be taken. The damaged skin should be covered with an appropriate dressing.
If the nail bed and nail matrix are not damaged, the nail should regrow normally. Nails grow at ~one-tenth of an inch per month and require three to six months to completely regrow. Toenails grow more slowly than fingernails.

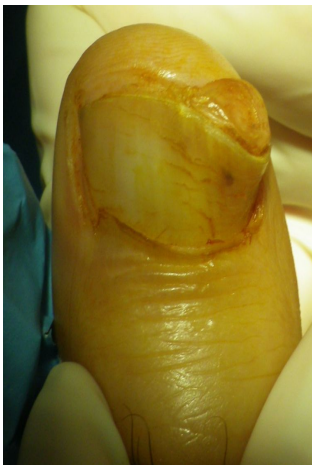
False-Nail Injury

Longer nails are more likely to become damaged by trauma because they can be levered off the nail bed. Often the fake-nail cannot be removed in the emergency department. Advise the patient to return to the nail technician to have the fake-nail removed with salon-treatment before you can assess the damage caused to the person's own nail underneath. Do not use trephination as some of the products used to apply false nails will be flammable.

In-growing Toe Nail

The most common painful non-traumatic toe problem is an ingrowing toe nail. This may result from a nail abnormality but is more likely to result from a soft tissue problem. The key steps in management are:

1. Mild cases can be treated by trying to elevate the nail corner.
2. Antibiotics are rarely helpful but may be needed if there is cellulitis.
3. There is a very high recurrence rate with simple nail removal and so these patients should be referred to a chiropodist or podiatrist for definitive treatment.
4. If there is severe infection (e.g. a paronychia), the nail may need to be removed to allow the infection to settle.



Subungal exostosis

This may present as an in-growing toenail
but closer examination will reveal a hard bony lump. An x-ray shall confirm the diagnosis and complications may require surgical excision.

REFERENCES & USEFUL LINKS

https://www.rcemlearning.co.uk/references/foot-pain/

https://www.rcemlearning.co.uk/foamed/minor-injuries