

# LESIONS OF THE DISTAL DIGITS

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*Many commonly-occurring lesions are specific to the distal digits, the general area of the nail unit and surrounding tissues. We need to be able to identify these so that we can treat where we can, and refer appropriately when we cannot.*

In addition to the many common nail dystrophies, we are most likely to encounter several other lesions in the course of our practice that appear beneath, or in close proximity to the nail structures. Only by recognition and understanding of these lesions can we manage them appropriately or refer intelligently.

**Subungual exostosis** a) (*subungual = beneath the nailplate*), (*ex = out of, os = bone*): a spur of bone growing from the distal phalanx, usually of the hallux, in response to injury or stimulation. The nail may be elevated by the spur, as it grows. The vascular bed of the nail does not blanch when pressed upon since the nailplate cannot be depressed. It may be possible to 'rock' the nailplate over the exostosis by placing a thumbnail on either side of the spur-supported nail. This condition will need to be referred for surgery as the nail plate will need to be removed to allow the exostosis to be removed. If the germinal matrix is not phenolised, the nailplate will grow back and normality can be restored.

The bone growth stretches the collagen bonds that retain the nailplate to the dorsal surface of the distal phalanx. The tissue of the nail bed is trapped between the underside of the plate and the top of the bony spur. If the exostosis is not so high as to need surgery, a subungual HD may form over the spur, and can be recognised as a 'putty-coloured' spot, centrally beneath the plate. Close observation may reveal a dark central spot – the nucleus formed on top of the bone spur - surrounded by a 'halo' of pale tissue where blood is excluded – leading to a characteristic 'fried-egg' appearance of the lesion. Treatment depends upon severity. It may be possible work down from the free edge, or to drill a hole in the nail and remove the HD by working through the hole with the tip of a scalpel blade. More severe cases will require surgery to expose and remove the bony outgrowth. Regrowth is possible post-surgically, particularly if the source of the bone stimulation is not addressed.

**Tuberous Sclerosis Complex** *'TSC is a genetic condition that can lead to growths in various organs of the body, but those most commonly affected are the brain, eyes, heart, kidney, skin and lungs. These growths may also be referred to as benign tumour - they are not malignant. When they cause problems it is mainly because of their size and where they are in the body. TSC growths have different names depending on which organ they are found in. The severity of TSC covers a wide range. Some people are so mildly affected that they experience very few problems. Others may be more severely affected and this can become apparent in childhood or adulthood.'*

(from 'An Introduction to Tuberous Sclerosis Complex' by the Tuberous Sclerosis Association – Internet - August 2013).

**Periungual fibroma** b) is one manifestation of TSC. Sufferers may develop finger-like growths that push out from beneath the eponychium and lie upon the nailplate. They may cause distortion of the nailplate, sometimes causing a 'trough' in which they lie. These may occur in individuals that have no knowledge of being TSC sufferers, and the periungual fibroma might be the first and the only symptom experienced. Larger masses are more obviously TSC, and may have a smooth and rounded appearance. They too, distort or disrupt the growth of the nailplate.

Surgery is required for the removal of even the smallest finger-like fibroma because the lesions are well-vascularised and originate in the tissues of the nail fold, beneath the eponychium.

**Periungual verruca** form around the nail margins and in the hyponychium, often presenting 'cotton wool-like' white tissue masses with a 'fluffy' appearance. Treatment is as for any other HPV/verruca infection. Those that occur on the fingers may be treated by immersion in water as hot as can be tolerated for several

minutes at a time, repeated as often as possible. Those on the toes must be treated by use of agents that cause either maceration or desiccation, or by Silver cream that modifies the virus to stop it replicating.

**Myxoid cysts** c) and d) (also known as mucous cysts) may form close to the proximal nail fold or may be related to the distal interphalangeal joints. DermNet.nz has it that they occur due to degeneration in connective tissues...

*'There appear to be two variations ...a form of focal mucinosis, a condition characterized by abnormal deposits of mucopolysaccharides (mucins) in the skin'..... 'The other variation arises from extension of the lining of the [finger or toe] joint and is due to osteoarthritis – a type of ganglion'.*

They are not true cysts, but are essentially 'pseudocysts'. A true cyst has an enclosing membrane that encloses and isolates the contents from the surrounding tissues, but a pseudocyst is simply a volume of fluid contained within the tissues. A myxoid cyst is usually tense and firm to the touch with a tight overlying skin surface. The myxoid cyst presents as a raised, smooth, blister-like circular dome and often appears to be somewhat translucent with a bluish tinge if the content remains clear. It can also appear darker in colour if blood is present in the content. The content is a sticky gel which can be expressed if the lesion is cut or ruptured. An excision can be made in the side of the blister and the contents expressed on to a tissue.

Those that are associated with the distal interphalangeal joints are thought to be associated with osteoarthritis and to fill with synovial fluid via a sinus or tract from a damaged joint capsule. Myxoid cysts can be emptied or drained and this may need to be done repeatedly if deemed necessary. Sometimes, even with repeated drainage they tend to refill, and they may need injection with steroids or sclerosants or even require surgery to obliterate the tract and prevent refill.



a) A subungual exostosis



c) and d) are myxoid cysts containing stiff and sticky synovial fluid which can be expressed



b) Periungual fibroma – note the 'trough' in which it lies



d) a tense cyst just waiting to be drained.

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*Answers should be submitted on A4 paper and should be of sufficient length to demonstrate full understanding of the topic. Single word answers are not permissible. Try to answer in one or two short paragraphs, not more than 1/4 page per answer.*

Q1. Say how you would diagnose a subungual exostosis

Q2. Describe the appearance of a periungual fibroma. What does it do to the nail?

Q3. What would be the diagnostic appearance of a subungual HD?

Q4. What is a myxoid cyst? Is it truly a cyst?

Q5. Explain how a myxoid cyst fills.

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