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Let us answer some questions you may have

- Onychomycosis
- What are the treatment options for fungal nail infections?
- What is a Bennett's fracture?

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Fungal nail infections. What are the treatment options?

Onychomycosis is a relatively common fungal nail infection causing nail turbidity, trachyonychia, discolouration and brittleness. Oral and topical antifungal medications are currently the first line of treatment, however their efficacy can be limited (due to inability to fully penetrate the nail bed) and cure rates low. Surgical avulsion of the toenail is another alternative, however undue pain and post-operative complications (particularly for diabetic and immunocompromised patients) are deterrents.

Although the mechanism of action of **lasers** in treating onychomycosis is unknown, effectiveness is thought to result from bulk heating to the horny cell layer and internal nail that is harbouring the fungus (a weak pathogen susceptible to heat). Heating has also been shown to stimulate infected nails to promote rapid growth. Patients are advised to continue with oral and topical antifungals and also to attend a podiatrist around one week prior to treatment for partial debridement of the affected nails.

Treatment consists of sub-millisecond pulses administered in a criss-crossed pattern to the nails (approx. 100-200 pulses to the big toe and between 20-100 pulses to the other nails) without the use of cooling, or anaesthetics. Treatment time is approximately 1-2 minutes per toenail and a total of up to 3 treatments are required. If you would like further information regarding treatment of onychomycosis using 1064nm Nd: YAG laser or are interested in a clinical paper regarding the treatment, contact WPRS for more information.

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ONYCHOMYCOSIS

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Bennett's fracture. What is it and why is it so important?

A Bennett's fracture is an intra-articular fracture at the base of the 1st metacarpal. It commonly occurs after a fall on an outstretched hand with forced abduction of the thumb. It is a particularly common fracture at this time of year with football season in full swing.

The reason it (along with a Rolando fracture which is a comminuted fracture at the base of the 1st metacarpal) is so important is that it results in an unstable thumb. The volar beak ligament is a very strong ligament attachment between the trapezium, 2nd metacarpal and 1st metacarpal. With a Bennett's fracture this ligamentous attachment is lost and the thumb slips dorsally, radially and proximally. Since the thumb is 50% of hand function this instability has a significant effect on hand function.

The management of a Bennett's fracture is, unlike many other hand fractures, always operative. K-wire fixation is required for 4 weeks and splint for a total of 6-8 weeks