

Answers to Medical Quiz

A1. There is swelling of the lateral and medial aspect of right big toe with signs of infection.

A2. Pressure from a poorly fitting shoe. Other causes could result from poorly shaped toenails, fungal infections or arthritis. Ingrown toenails could also result from injury to the toe.

A3. Ingrown toenail.

DISCUSSION

Ingrown toenail (also known as onychocryptosis or unguis incarnates) is a common condition where the corner or side of a toenail grows into the soft skin of the nail. This condition usually presents with pain, redness, swelling and occasional infection. Ingrown toenails usually affect the lateral aspect of the big toe¹.

Ingrown toenails could be caused by pressure from a poorly fitting shoe leading to the abnormal growth of the toenail. Another cause could be poorly shaped toenails. Some fungal infections or arthritis could cause toenails to thicken and grow abnormally. Ingrown toenails could result from injury to the toe¹.

The lateral edge of the great toe is mainly affected. It affects mainly males aged 15 to 40 years; 20% of patients with foot problems have an ingrown toenail^{2,3}. It is not known whether the size and shape of the surrounding periungual nail folds are the cause⁴. Ingrown toenails are associated with inappropriate nail trimming, tight footwear, hyperhidrosis and poor foot hygiene, onychomycosis, hereditary, trauma, diabetes and obesity, thyroid, cardiac and renal disorders^{5,6}.

The management of patients with this condition depends on the stage and severity of ingrown toenail and whether the patient has previously presented with an ingrown toenail or not. Diagnostic tests are not usually required, but if a particular cause is suspected appropriate tests is advised⁶.

In general, conservative treatments could be tried in patients with mild symptoms of an ingrown toenail and patients at high risk of surgical complications. Surgical intervention could be considered in patients with severe symptoms⁷.

There are different techniques that target the toenail. The widely used surgical intervention is wedge resection. The recurrence rates following this procedure vary from 1 to 14%. Ingrown toenails could be prevented by avoiding tight-fitting shoes, trauma and trim the nails correctly by straight across cutting⁷.

CONCLUSION

An ingrown toenail is caused by tight footwear, infection, improperly trimmed toenails, trauma and heredity. Most commonly affected is the lateral side of the great toe. Conservative management is indicated for mild cases, and wedge resection is considered the treatment of choice for severe cases.

REFERENCES

1. Park DH, Singh D. The Management of Ingrowing Toenails. *BMJ* 2012; 344:e2089.
2. Heidelbaugh JJ, Lee H. Management of the Ingrown Toenail. *Am Fam Physician* 2009; 79:303–8.
3. Ogur R, Tekbas OF, Hasde M. Practice Tips. Managing Infected Ingrown Toenails: Longitudinal Band Method. *Can Fam Physician* 2005; 51:207–8.
4. Chapeskie H, Kovac JR. Case Series: Soft-Tissue Nail-Fold Excision: A Definitive Treatment for Ingrown Toenails. *Can J Surg* 2010; 53:282–6.
5. Bos AM, van Tilburg MW, van Sorge AA, et al. Randomized Clinical Trial of Surgical Technique and Local Antibiotics for Ingrowing Toenail. *Br J Surg* 2007; 94:292–6.
6. Haneke E. Controversies in the Treatment of Ingrown Nails. *Dermatol Res Pract* 2012; 2012:783924.
7. Richert B. Surgical Management of Ingrown Toenails - An Update Overdue. *Dermatol Ther* 2012; 25:498–509.