Proper Preop Makes for Easier Toenail Surgery

BY JEFF EVANS
Senior Writer

Washington — Proper early management of ingrown toenails may help to decrease the risk of infection or not surgery is necessary. Dr. C. Ralph Daniel III said at the annual meeting of the American Academy of Dermatology.

‘An ingrown nail is primarily acting as a foreign body reaction. That rigid spicule penetrates soft surrounding tissue and produces swelling, granulation tissue, and sometimes a secondary infection, said Dr. Daniel of the departments of dermatology at the University of Mississippi, Jackson, and the University of Alabama, Birmingham.

For the early management of stage I ingrown toenails in which some granulation tissue but no infection is present, Daniel has trained his nurses to push wigs of cotton gently involved in ingrown nail by using a 2-mm nail elevator or a 1- to 2-mm curette.

He also uses a technique for early stage ingrown toenails in which dental floss is inserted under the ingrown nail with or without anesthesia and is kept there to separate the nail edge from adjacent soft tissue (J. Am. Acad. Dermatol. 2004;50:939-40).

Dr. Daniel formerly was on the board of directors of Merck Derm-tonics, a subsidiary of Merck.

He holds stock options and has served as a speaker, consultant, and investigator for the company.

A procedure that uses an acrylic-affixed guitar splint has been reported to be successful for avoiding surgery. Dr. Daniel said.

A plastic gutter tube is set under the ingrown part of the nail and acrylic is sculpted and allowed to polymerize around the nail to effectively remove the nail and hold the gutter tube in place. The tubes are removed once the inflammation has subsided and the nail has grown appropriately (Int. J. Dermatol. 2004;43:759-65).

Surgery should not be performed on a patient with an ingrown toenail in a more advanced stage—more granulation tissue, significant pain, possible infection—until the level of inflammation has been reduced with salt soaks in warm water (as opposed to cold, because of the possibility of infection) and topical application of steroids three times a day for about a week, Dr. Daniel said. He does not use urea very often in these cases because it does not seem to work as well as it does for early stage ingrown toenails.

Before surgery, leave plenty of time for anesthesia using a digital block or a distal approach to take effect. Premedication with NSAIDS, codeine, or dextropropoxyphene also may be appropriate, he said. Dr. Daniel uses a timer and does not keep a tourniquet on for more than 15 minutes; most procedures do not take longer than that (some surgeons do not use tourniquets).

To cut away the offending section of nail, an English anvil nail splitter is inserted under the nail plate and the cut is made all the way to the proximal nail fold. The hypertrophic, granulated tissue should be cut away as well. Many ingrown toenails are recurrent, so Dr. Daniel performs a chemical matricectomy in nearly all patients after making sure that the surgical field is dry and bloodless.

The proximal nail fold can be bladed back to expose more of the proximal matrix if necessary. He inserts a Calgwab coated with 88% phenol and 10% sodium hydrosulfite and applies the chemical for 30 seconds to the portion of the nail matrix that needs to be removed.

An Ellman electrode can be used to electrodescise the matrix, followed by curet-ure. The CO2 laser also has been used to perform a partial thickness removal of the nail tip and stipping of the nail matrix with methylene blue (Dermatol. Surg. 2005;31:302-3).

Desonate™ (desonide) Gel 0.05%

CLINICAL PHARMACOLOGY: Topical corticosteroids share anti-inflammatory, antiproliferative and vascular suppression properties that are dose-related and concentration-dependent, in general. Corticosteroids are thought to act by the induction of phosphatase A, inhibitory proteins, collectively called lipocortins. It is proposed that these products control the biosynthesis of prostaglandins, the mediators of inflammation. The mechanism of action of topical corticosteroids is poorly understood. The anti-inflammatory and/or antiproliferation effects in the skin also may increase percutaneous absorption. This can be seen with potent corticosteroids even in normal skin. Potent corticosteroids are handled through pharmacokinetic pathways similar to systemic administration. Long-term animal studies have not been performed to evaluate the corticosteroid or photosensitizing potential in Desonate Gel.

Indications: Desonate Gel is indicated for the treatment of mild to moderate atopic dermatitis in children and adults 2 years of age and older. Desonate Gel should be used only to those patients who have not responded to or who have developed intolerance to other topical corticosteroids (see CONTRAINDICATIONS).

CONTRAINDICATIONS: Desonate Gel is contraindicated in those patients with a history of hypersensitivity to any corticosteroid or its vehicle. Potent corticosteroids are contraindicated in active infection or in susceptible sites with the possibility of spread of infection. Desonate Gel is contraindicated in those patients with ruptured adnexa or who are pregnant or breast feeding.

PHARMACOLOGY: The effect of percutaneous absorption of topical corticosteroids is determined by the vehicle base, the chemical composition of the corticosteroid, the concentration of the corticosteroid, and the route of administration. Corticosteroids are known to reduce inflammation and/or other disease processes in the skin also may increase percutaneous absorption. This can be seen with potent corticosteroids even in normal skin. Potent corticosteroids are handled through pharmacokinetic pathways similar to systemic administration. Long-term animal studies have not been performed to evaluate the corticosteroid or photosensitizing potential in Desonate Gel.

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