

# Refined Repair Halts Ingrown Toenail Recurrence

Alternative to Emmert plasty preserves nail apparatus while deeply targeting granulation tissue.

BY BETSY BATES  
Los Angeles Bureau

FLORENCE, ITALY — An alternative to the classic, 150-year-old surgical technique for repairing ingrown toenails may be associated with fewer recurrences and a much-improved aesthetic result, two Swiss dermatologists reported at the 13th Congress of the European Academy of Dermatology and Venereology.

Bernard Noël, M.D., and his coauthor Renato G. Panizzon, M.D., maintain that their new technique is superior to Emmert plasty, a procedure that consists of a rather superficial wedge excision of granulation tissue, as well as both the adjacent nail bed and the corresponding matrix.

To refine Emmert plasty, however, they first had to scrutinize its steps to understand why it has a recurrence rate as high as 10%-30%.

Dr. Noël and Dr. Panizzon, professor of dermatology at the University of Lausanne (Switzerland), theorized that re-

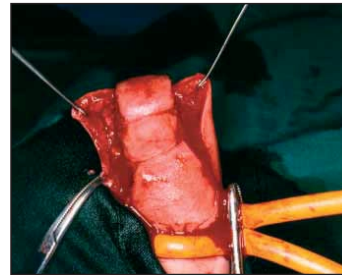
currences may be related to the surgical target of Emmert plasty: the nail, which is narrowed by the radical surgery and sometimes left in a dystrophic state that may be vulnerable to the same pressure that led to the development of the ingrown nail initially.

Moreover, when a significant portion of the nail bed is sacrificed and the nail width is permanently reduced, aesthetic results are often "unsatisfactory," according to Dr. Noël, chief of dermatologic surgery and the wound healing clinic at Centre Hospitalier Universitaire Vaudois of the University of Lausanne.

By contrast, their approach preserves the nail apparatus while deeply targeting the granulation tissue and reducing the size of the toe itself.

"The breadth of the toe extremity is clearly reduced in a way that radically reduces the lateral pressure exerted by the shoes," Dr. Noël said.

"The great toe looks thinner, with a nail plate covering almost completely the dis-



Granulation tissue is removed with large and deep excisions.



The toe extremity is narrowed but the nail apparatus is entirely preserved.

PHOTOS COURTESY DR. BERNARD NOËL

tal phalange, reducing, therefore, the risk of recurrence," he noted.

The procedure is performed using a digital block and tourniquet at the toe base. Large, deep excisions remove granulation tissue before the wounds are closed in standard fashion.

Among 10 patients followed for a year or more, there has been a 100% success rate and no incidence of recurrence, Dr. Noël and Dr. Panizzon reported in their detailed poster presentation.

The authors believe their findings bode well for patients who are prone to develop ingrown toenails, which are the most

common of all toenail disorders, believed to account for as many as 20% of foot-related physician visits.

Excessive pressures on the lateral toenail because of body weight, the wearing of ill-fitting shoes, or the practice of improperly cutting toenails all have been cited as contributors to the inflammation and the formation of granulation tissue that causes nails, usually of the great toe, to become ingrown.

When patient education and conservative therapy fail, repeated recurrences can lead to infections and extreme discomfort. ■

## Salex™ (6% Salicylic Acid) Lotion

Rx Only

FOR TOPICAL USE ONLY. NOT FOR OPHTHALMIC, ORAL OR INTRAVAGINAL USE.

### INDICATIONS AND USAGE

For Dermatologic Use: Salex™ Lotion is a topical aid in the removal of excessive keratin in hyperkeratotic skin disorders, including verrucae, and the various ichthyoses (vulgaris, sex-linked and lamellar), keratosis palmaris and plantaris, keratosis pilaris, pityriasis rubra pilaris, and psoriasis (including body, scalp, palms and soles).

For Podiatric Use: Salex™ Lotion is a topical aid in the removal of excessive keratin on dorsal and plantar hyperkeratotic lesions. Topical preparations of 6% salicylic acid have been reported to be useful adjunctive therapy for verrucae plantares.

### CONTRAINDICATIONS

Salex™ Lotion should not be used in any patient known to be sensitive to salicylic acid or any other listed ingredients. Salex™ Lotion should not be used in children under 2 years of age.

### WARNINGS

Prolonged use over large areas, especially in children and those patients with significant renal or hepatic impairment, could result in salicylism. Concomitant use of other drugs which may contribute to elevated serum salicylate levels should be avoided where the potential for toxicity is present. In children under 12 years of age and those patients with renal or hepatic impairment, the area to be treated should be limited and the patient monitored closely for signs of salicylate toxicity: nausea, vomiting, dizziness, loss of hearing, tinnitus, lethargy, hyperpnea, diarrhea, and psychic disturbances. In the event of salicylic acid toxicity, the use of Salex™ Lotion should be discontinued. Fluids should be administered to promote urinary excretion. Treatment with sodium bicarbonate (oral or intravenous) should be instituted as appropriate.

Due to potential risk of developing Reye's syndrome, salicylate products should not be used in children and teenagers with varicella or influenza, unless directed by a physician.

### PRECAUTIONS

For external use only. Avoid contact with eyes and other mucous membranes.

### DRUG INTERACTIONS

The following interactions are from a published review and include reports concerning both oral and topical salicylate administration. The relationship of these interactions to the use of Salex™ Lotion is not known.

I. Due to the competition of salicylate with other drugs for binding to serum albumin the following drug interactions may occur:

DRUG	DESCRIPTION OF INTERACTION
Sulfonureas	Hypoglycemia potentiated.
Methotrexate	Decreases tubular reabsorption; clinical toxicity from methotrexate can result.
Oral Anticoagulants	Increased bleeding.

### II. Drugs changing salicylate levels by altering renal tubular reabsorption:

DRUG	DESCRIPTION OF INTERACTION
Corticosteroids	Decreases plasma salicylate level; tapering doses of steroids may promote salicylism.
Acidifying Agents	Increases plasma salicylate level.
Alkalinizing Agents	Decreases plasma salicylate level.

### III. Drugs with complicated interactions with salicylates:

DRUG	DESCRIPTION OF INTERACTION
Heparin	Salicylate decreases platelet adhesiveness and interferes with hemostasis in heparin-treated patients.
Pyrazinamide	Inhibits pyrazinamide-induced hyperuricemia.
Uricosuric Agents	Effect of probenecid, sulfipyrazon and phenylbutazone inhibited.

The following alterations of laboratory tests have been reported during salicylate therapy:

LABORATORY TESTS	EFFECT OF SALICYLATES
Thyroid Function	Decreased PBI; increased T <sub>3</sub> uptake.
Urinary Sugar	False negative with glucose oxidase; false positive with Clinistest with high-dose salicylate therapy (2-5g q.d.).
5-Hydroxyindole acetic acid	False negative with fluorometric test.
Acetone, ketone bodies	False positive FeCl <sub>3</sub> in Gerhardt reaction; red color persists with boiling.
17-OH corticosteroids	False reduced values with > 4.9g q.d. salicylate.
Vanilmandelic acid	False reduced values.
Uric acid	May increase or decrease depending on dose.
Prothrombin	Decreased levels; slightly increased prothrombin time.

**Pregnancy (Category C):** Salicylic acid has been shown to be teratogenic in rats and monkeys. It is difficult to extrapolate from oral doses of acetylsalicylic acid used in these studies to topical administration as the oral dose to monkeys may represent six times the maximal daily human dose of salicylic acid when applied topically over a large body surface. There are no adequate and well-controlled studies in pregnant women. Salex™ Lotion should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** Because of the potential for serious adverse reactions in nursing infants from the mother's use of Salex™ Lotion, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the

importance of the drug to the mother.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No data are available concerning potential carcinogenic or reproductive effects of Salex™ Lotion. It has been shown to lack mutagenic potential in the Ames Salmonella test.

### ADVERSE REACTIONS

Excessive erythema and scaling conceivably could result from use on open skin lesions.

### OVERDOSAGE

See Warnings.

### DOSE AND ADMINISTRATION

The preferable method of use is to apply Salex™ Lotion thoroughly to the affected area and occlude the area at night. Preferably, the skin should be hydrated for at least five minutes prior to application. The medication is washed off in the morning and if excessive drying and/or irritation is observed a bland cream or lotion may be applied. Once clearing is apparent, the occasional use of Salex™ Lotion will usually maintain the remission. In those areas where occlusion is difficult or impossible, application may be made more frequently; hydration by wet packs or baths prior to application apparently enhances the effect. Unless hands are being treated, hands should be rinsed thoroughly after application.

### HOW SUPPLIED

Salex™ Lotion is available in 14 fl oz (414 ml) (NDC 0064-4011-14) bottles.

Store at controlled room temperature 20° - 25°C (68° - 77°F). Do not freeze.

**Salex™**  
(6% Salicylic Acid)  
Lotion

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**HEALTEPOINT®**

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1-800-441-8227

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## Simple Measures May Reduce Patients' Postoperative Pain

BY TIMOTHY F. KIRN  
Sacramento Bureau

VANCOUVER, B.C. — Simple measures taken at the time of ambulatory surgery, such as the use of clonidine, can significantly reduce patients' postoperative pain, Dr. Scott S. Reuben said at the annual meeting of the American Pain Society.

On a scientific front, "there has been an explosion in our understanding of pain management in the past 4 or 5 years," said Dr. Reuben, director of the acute pain service at Baystate Medical Center, Springfield, Mass., at which 35,000 ambulatory surgeries are performed each year.

At the same time, surveys suggest that pain care following ambulatory surgery is not getting better and may even be getting somewhat worse, as the number and types of surgery have grown, Dr. Reuben said.

"We're doing a horrible job managing postoperative pain," he said.

Preemptive techniques are key to addressing this situation because it is now known that pain control before and during a surgical procedure can prevent the trauma from causing central sensitization, which lowers the pain threshold in the postoperative period.

Good short-term pain control may even prevent chronic, postoperative pain from developing, he said.

Some of the methods used at his center to preempt central sensitization include:

► **Local analgesia.** Even with general anesthesia, local pain control is important during surgery, Dr. Reuben said.

"General anesthesia does nothing to block central sensitization of the nervous system. Local anesthetics can."

At his center, local anesthesia for joint surgery includes a combination of agents, clonidine, bupivacaine, and morphine. The surgeons use ice as well.

► **Clonidine.** Alpha<sub>2</sub>-agonists used locally cause vasoconstriction that prevents dispersion of other local anesthetics, and that is probably one reason clonidine has been shown to increase the duration of local bupivacaine action, by 20%-30% according to one study, Dr. Reuben said.

Clonidine itself also is an analgesic. It "has fantastic analgesic properties to control perioperative pain," he said.

► **Opioids.** The administration of an opioid before surgery acts centrally to prevent the hyperexcitability response produced by surgery, and this can mean less need for analgesics afterward. But more importantly, it is now known that there are local opioid receptors, and that even bone has them. "We have published about 12 studies on putting peripheral morphine in the knee for arthroscopy, with significant analgesic effects," Dr. Reuben said.

When morphine is used locally, very little is needed to control pain, and, as with clonidine, there appears to be a synergistic effect when it is used with other agents.

Dr. Reuben's research group has shown that clonidine alone used locally produces significant analgesia for up to 7 hours, clonidine and bupivacaine produce analgesia for 10 hours, and clonidine, bupivacaine, and morphine combined produce 17 hours, he said. ■