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 Renatto 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%.

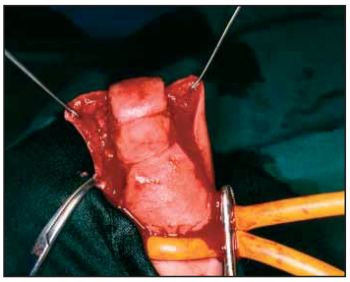
Dr. Noël and Dr. Panizzon, professor of dermatology at the University of Lausanne (Switzerland), theorized that recurrences may be related to the surgical target of Emmert plasty: the nail, which is narrowed by the radical surgery and sometimes left in a dystrophic state that may be vulnerable to the 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.

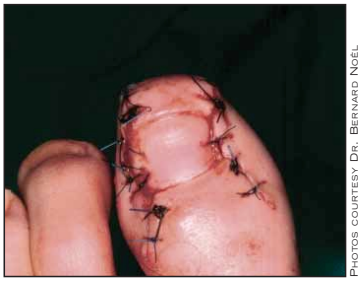
By contrast, their approach preserves the nail apparatus while deeply targeting the granulation tissue and reducing the size of the toe itself.

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



Granulation tissue is removed with large and deep excisions.



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

PHOTOS COURTESY DR. BERNARD NOËL

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. ■

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' postprocedure 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 postoerative 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$_2$-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. ■