

# Letter to the Editor

## Pain Control After Cryotherapy

Dear *Cutis*<sup>®</sup>:

Cryotherapy is one of the most commonly used techniques in the management of warts, actinic keratoses, and other usually benign epidermal neoplasms. Despite its common use in dermatology, pain associated with the use of liquid nitrogen continues to be a problem in both pediatric and adult populations. Patients often report a persistent burning sensation for up to hours after treatment with cryotherapy. Oral pain relievers such as acetaminophen, nonsteroidal anti-inflammatory drugs, and narcotics may be used to help alleviate the pain. Topical anesthetics applied prior to surgery also have been proposed as a means to reduce the pain of cryotherapy, though studies have demonstrated that they are generally ineffective and time consuming.<sup>1,2</sup>

We propose an approach that involves applying lidocaine cream 4% in a liposomal formulation to the skin immediately following cryotherapy and removing it within 15 to 30 minutes. An adhesive bandage also may be used to prevent the anesthetic from rubbing off. Although this approach does not affect the initial pain of cryotherapy, we have found it to provide a soothing effect and to reduce the duration of stinging and irritation following treatment. Thus far we have used this technique with approximately 20 patients (Figure), including both children and adults who previously had been treated with cryotherapy without posttherapy lidocaine cream 4% in a liposomal formulation. In all cases, patients experienced a faster rate of improvement in pain, usually within minutes, compared to prior treatments. It is possible that the damaged epidermal barrier following cryotherapy allows better penetration and efficacy of the anesthetic as opposed to application to intact thickened epidermis prior to cryotherapy. Hence, we believe the

application of lidocaine cream 4% in a liposomal formulation following treatment with liquid nitrogen may provide another option for pain control in cryotherapy and may obviate the need for oral analgesics in children and patients with a lower threshold for pain.

Sincerely,  
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The authors report no conflict of interest.



Lidocaine cream 4% in a liposomal formulation applied to the skin after cryotherapy.

### REFERENCES

1. Torrelo A. What's new in the treatment of viral warts in children. *Pediatr Dermatol.* 2002;19:191-199.
2. Goldman RD. ELA-max: a new topical lidocaine formulation. *Ann Pharmacother.* 2004;38:892-894.