

# PDT and Pressure Dressing May Avoid Keloid

*Procedural, topical measures improve efficacy of surgery; communication and prevention are ideal.*

BY SHERRY BOSCHERT  
San Francisco Bureau

LAS VEGAS — Treatment of keloids or hypertrophic scars with surgery alone is almost guaranteed to fail, but there are theories as to which of the many potential adjunctive therapies might be best, and how best to combine treatments, Dr. Jimmy J. Brown said.

Dr. Brown and two other experts described their preferred treatment regimens at an international symposium sponsored by the American Academy of Facial Plastic and Reconstructive Surgery.

Developing a strong bond between the physician and patient is paramount for successful management of these challenging lesions, especially for giant keloids, said Dr. Brown of Charles R.

Drew University of Medicine and Science, Los Angeles.

Dr. Brian J. F. Wong said that most current treatment regimens use some combination of surgery, pressure, silicone gels or sheeting, and steroid injections, based mainly on ad hoc and anecdotal reports.

**The most promising upcoming therapies for keloids and hypertrophic scars may be pulsed dye laser and photodynamic therapy.**

"It's a very confusing body of literature," said Dr. Wong of the University of California, Irvine.

Even with combination therapy, 50% of keloids and hypertrophic scars recur, he noted.

Prevention is the best strategy, Dr. R. James Koch emphasized. Studies show that African Americans and possibly people of Chinese ancestry are at higher risk to develop keloids, compared with whites. Many things can cause keloids, including surgery, burns, skin piercing, lacerations, abrasions, and tattoos. Patient who may

be predisposed to keloids should avoid nonessential surgery, said Dr. Koch of Palo Alto, Calif.

After surgery alone, keloids recur in 45%-100% of cases. Adding radiation therapy may reduce the recurrence rate to 10%-20%, the literature suggests, but its use is not standardized. No one knows when best to use it, how much to use, or whether fractionated protocols are beneficial, he pointed out.

Some physicians use a single postoperative dose of radiation in some patients. Dr. Brown cautioned that most radiologists prefer to use low-dose radiation for patients with keloids because it is a benign disease, but this may increase the risk for later development of radiation-related malignancy. He knows of three patients who developed squamous cell carcinoma in a keloid site after postoperative radiation therapy.

His immediate postoperative care comprises topical imiquimod (Aldara) cream 5% once a day and a pressure dressing; the wound is kept tension free. The jury is still out on imiquimod's usefulness for keloids, Dr. Brown said. His anecdotal experience suggests that using positive pressure splints once the surgical wound is healed is important to prevent keloid recurrence. It may be necessary to create pressure devices, such as a clothespin on an earlobe, after keloid removal, he suggested.

"If we can get away with excision, Aldara, and pressure therapy, we may not need radiation," he said.

He generally stops imiquimod after 8 weeks, although he will interrupt therapy earlier if the wound starts to break down where it was applied. This is not a debilitating problem, and the drug can be restarted after the wound heals, he said.

Intralesional corticosteroid injections should be a key part of treatment, Dr. Koch and Dr. Brown agreed.

Dr. Koch typically treats keloids with excision, but one shouldn't compromise anatomic structures to remove all of the keloid at once, he said. It may be done in stages. He avoids wound tension and may add pressure therapy. Intralesional steroids begin at least 2-3 weeks after surgery, and he also may use silicone gel.



COURTESY DR. R. JAMES KOCH

**A combination of surgery, topical imiquimod, and pressure therapy may stave off the need for radiation.**

For hypertrophic scars, Dr. Koch performs scar revision surgery and will start intralesional steroids at the first sign of hypertrophic scar recurrence. He also said he may use compression or silicone gel.

The most promising upcoming therapies for keloids and hypertrophic scars may be pulsed dye laser and photodynamic therapy (PDT), Dr. Wong said. Keloids are hypervascular lesions, and the pulsed dye laser disrupts blood supply, using a very narrow, local heat effect to trigger apoptotic mechanisms. When he removes a keloid, he sends the patient to a dermatologist for targeted pulsed dye laser therapy.

Studies of PDT for cancer have shown that it does not successfully treat malignancies but seems to decrease scar formation. Since PDT has no ionizing radiation, it can treat the keloid while preserving the normal tissue matrix. Dr. Wong plans to begin using PDT in patients with refractory keloids soon. "It's like a neutron bomb—you can kill the occupants but leave the house intact," he said. "There's no downside in the correct patient."

Dr. Koch was less enthusiastic about flashlamp and pumped pulsed dye laser therapy for keloids. This strategy mainly helps take the red out of the lesions, he said.

## BRIEF SUMMARY OF PRESCRIBING INFORMATION

**Mimyx**<sup>™</sup>  
cream

### For Topical Dermatological Use Only

Rx only

#### Indication For Use

Mimyx Cream is indicated to manage and relieve the burning and itching experienced with various types of dermatoses, including atopic dermatitis, allergic contact dermatitis and radiation dermatitis. Mimyx Cream helps to relieve dry, waxy skin by maintaining a moist wound & skin environment, which is beneficial to the healing process.

#### Contraindications

Mimyx Cream is contraindicated in persons with a known hypersensitivity to any of the components of the formulation.

#### Warnings

In radiation therapy, Mimyx Cream may be applied as indicated by the treating Radiation Oncologist. Do not apply 4 hours prior to a radiation session.

#### Precautions and Observations

- Mimyx Cream is for external use only.
- Mimyx Cream does not contain a sunscreen and should not be used prior to extended exposure to the sun.
- If clinical signs of infection are present, appropriate treatment should be initiated; use of Mimyx Cream may be continued during the anti-infective therapy.
- If the condition does not improve within 10 - 14 days, consult a physician.
- Keep this and other similar products out of the reach of children.
- Mimyx Cream may dissolve fuchsin when this dye is used to define the margins of the radiation fields to be treated.

#### HOW SUPPLIED

Mimyx<sup>™</sup> Cream is available in a 70 gram tube, NDC 0145-4200-01.

Store at 15°C to 30°C (59°F to 86°F). Do not freeze.

Stiefel Laboratories, Inc.  
Coral Gables, FL 33134

826801-0905

**Rx only - Prescription Medical Device: Federal Law restricts this device to sale by or on the order of a physician.**

**REFERENCES:** 1. Data on file. August C. Stiefel Research Institute, Inc. 2. Eberlein-Koenig B, Eicke C, Reinhardt H-W, Ring J. Adjuvant treatment of subjects with atopic dermatitis: assessment of Physiogel A.I. (Mimyx Cream) (ATOPA). Presented at: 64th Annual Meeting of the American Academy of Dermatology; March 2006; San Francisco, CA. Poster 821. 3. Kemeny L. A comparison of S236 (Mimyx Cream) to hydrocortisone 1% cream in the treatment of mild to moderate atopic dermatitis. Presented at: 63rd Annual Meeting of the American Academy of Dermatology; February 2005; New Orleans, LA. Poster 708. 4. Jorizzo JL. Lamellar preparations as adjunctive therapy in the treatment of atopic dermatitis. Presented at: 63rd Annual Meeting of the American Academy of Dermatology; February 2005; New Orleans, LA. Poster 721. 5. Zerweck C, Fraser JM, Grove GL. Efficacy of S236 Cream (Mimyx Cream), a medical device cream, in promoting barrier repair of razor-induced skin trauma. Presented at: 64th Annual Meeting of the American Academy of Dermatology; March 2006; San Francisco, CA. Poster 805. 6. Llorca MA, Dorado Bris JM, Sáenz de Santamaría MC, Añeri Más V, Garay Arconada, Pérez Muñelo A. Evaluation of the activity of a moisturizing and restoring-action preparation, with lamellar structure, as adjuvant in the treatment of atopic dermatitis and xerotic skin. *Rev Intern Dermatol Dermocosm.* 2003;6:425-430. 7. Mimyx Cream [package insert]. Coral Gables, FL; Stiefel Laboratories, Inc.; 2005.

Mimyx is a registered trademark of Stiefel Laboratories, Inc., and Research in Dermatology is also a trademark of Stiefel Laboratories, Inc.

## Metaanalysis Yields Mixed Results in Keloid, Hypertrophic Scar Treatment

Most of the available treatments for keloids or hypertrophic scars offer a minimal likelihood of improvement, a metaanalysis suggests.

The metaanalysis of results from 70 trials found a 70% chance of improvement from treatment. The management regimens improved lesions by a mean of 60%, compared with baseline, and a few therapies were no better than observation alone, Dr. Douglas Leventhal reported in a poster presentation at the international symposium.

There is no universally accepted treatment regimen for keloids or hy-

pertrophic scars and no evidence-based literature to help clinicians choose from among the many treatment options that have already been tried. Management has evolved over the years from crude, invasive methods such as gross excision and radiation to intralesional or topical agents that work on a cellular level, wrote Dr. Leventhal of Jefferson Medical College, Philadelphia.

Some current treatments for keloids or hypertrophic scars may provide clinically significant improvements, but results fall far short of a cure, he concluded.