Ulcerated Hemangioma Management Practices Revealed

BY SHERRY BOSCHERT

SAN FRANCISCO — The various treatments for ulcerated hemangiomas each help some patients, but some treatments can make a number of patients worse, and it’s difficult to know in advance who will be helped or harmed.

The medical literature provides little guidance on the management of ulcerated hemangiomas, Dr. Annette Wagner said at a meeting of the Society for Pediatric Dermatology.

Applying wound barriers to ulcerated hemangiomas reduces the pain of contact, and the ulceration usually heals in 1-2 months. To help preserve the skin edge along the ulceration, make a border of DuoDERM around the edge and leave it on the skin as adhesive dressings are applied or removed, suggested Dr. Wagner, a pediatric dermatologist at Northwestern University, Chicago.

Surprisingly, only one study in the medical literature has compared other treatments for ulcerated hemangiomas. Among the patients who were treated with 2-3 mg/kg of oral steroids, which are considered the first-line treatment beyond barriers, ulcerations did not respond in 5 (23%) of the seven patients who received intraleisional Kenalog (triamcinolone acetonide), which can be useful for localized, nodular hemangiomas, four (57%) improved, two (29%) did not, and one (15%) worsened. Among 22 patients treated with pulsed dye laser in that study, the ulcerations improved in 11 (50%) but worsened in 1 (5%) patient (J. Am. Acad. Dermatol. 2001;44:962-72).

“For all of these treatments, there’s the same story. For some patients, they seem to work really well, but not for all patients. It’s difficult to know in whom it will be effective,” she said.

Also in that study, five patients were treated with interferon and had no ulcerations, but two of those patients had their ulcerated hemangiomas excised. Dr. Wagner does excise some smaller nodular ulcerated hemangiomas to end the pain, since “you’re going to end up with a bad scar anyway.”

There have been at least five case series of ulcerated hemangiomas treated with pulsed dye laser published between 1991 and 2006. The reports varied in the levels of energy used, the intervals between treatments, and response rates.

“The most important thing is, if you treat with laser, it really seems to help with pain control after one treatment,” she said. The second most important thing to keep in mind is that laser can harm patients. A previous report of laser treatment on nonulcerated hemangiomas found that treatment caused ulceration, serious bleeding, and bad scarring in some patients.

“You have to use this tool with great caution,” Dr. Wagner advised. “I never laser during that early proliferative phase in nonulcerated areas of hemangiomas.”

An initial trial using becaplermin gel (Regranex) to treat ulcerated permeal hemangiomas that had superficial or mixed morphologies healed them in an average of 10 days, with a range of 3-25 days (Arch. Dermatol. 2002;138:314-6).

Regranex, which is approved to treat diabetic foot ulcers, is a recombinant platelet-derived growth factor that seems to increase fibroblast proliferation and differentiation to help heal ulcerated hemangiomas. It also can lead to more granulation tissue and bleeding, however, so clinicians should be selective in using it, Dr. Wagner cautioned.

She believes Regranex works best on hemangiomas that have a fibrin base and sort of “punched out” ulcerations without a lot of red granulation tissue, “almost like chronic wounds.” On the other end of the wound spectrum, she never treats “activated, kind of gnarly” wounds with Regranex, which could make them worse.

A black-box warning issued last year by the Food and Drug Administration about Regranex stemmed from evidence that patients with a history of cancer had an increased risk of death after using more than three tubes of Regranex. Dr. Wagner reported having no potential conflicts of interest.

Nine Tips for Effective Laser Treatment

Preparation, pain management, debridement, and sufficient laser energy are keys to successful pulsed dye laser treatment for ulcerated hemangiomas, Dr. Wagner said.

She sees 65-75 patients a month with hemangiomas, 28-30 of which are ulcerated, and she treats ulcerations with a pulsed dye laser 12 times per month on average. She offered these tips from her experience:

► Manage pain. Give the child acetaminophen an hour before laser treatment. Dr. Wagner also uses a topical anesthetic cream but doesn’t find that it makes much difference. Explain to parents that the laser treatment is not much worse than the pain of an open ulcer. It may be even better to offer to apply the laser to the parent’s forearm first. That usually dispels their fear, she said.

► Be prepared. Before you pick up the baby, have the laser set, get the nurses in the room, prepare the dressings and whatever is going to go on them, and make sure the parents are seated. The child is on the table and back into a parent’s arms within 1 minute.

► Do no harm. This tool can injure, so be cautious. Ulceration will worsen in a subset of patients. Don’t re-treat with a laser if the first round made things worse.

► Where to laser? Nobody really knows. She lasers open areas in the ulceration and along the rolled edge to try to stimulate cytokine production. Sometimes she’ll apply the laser to dark, dusky areas that look like they’re about to ulcerate.

► Dry the field. Before the laser is used, dry the field not only to get debris out, but to prevent splattering. Prepare for bleeding during the procedure, especially if the child has been treated with Regranex (becaplermin). Inform parents to expect more bleeding in the operating room and in the postoperative period, especially from ulcerations in the genital area.

► Cover the wound. Do this after laser treatment for pain control.

► Re-treat? No study has looked at optimal intervals between laser treatments for ulcerated hemangiomas. Dr. Wagner sees patients again in 2 weeks, although she will occasionally see some patients sooner.