

Search for Ideal Cosmetic Neurotoxin Continues

BY DOUG BRUNK

LAS VEGAS — Dr. Gary D. Monheit's ideal cosmetic neurotoxin would have a rapid time of onset and a stable pharmacologic action throughout its time of activity.

Its effect would also be limited to the muscle sites of injection. "There are many variables that we put into this formula, such as the dilution we give it, the force of injection, and our injection points," he said at the annual meeting of the American Society of Cosmetic Dermatology and Aesthetic Surgery. "But we would like to have a toxin that stays stable where we're injecting it."

Other ideal properties include limited yet controlled diffusion or "the field of effect," few drug-related side effects such as pain or flulike symptoms, a natural-appearing response, and a prolonged action, "something greater than 6 months," he said.

At the present time no cosmetic neurotoxin meets all of these ideal properties, said Dr. Monheit of the departments of dermatology and

ophthalmology at the University of Alabama at Birmingham. To date, Botox (Allergan Inc.) is the only cosmetic neurotoxin approved by the Food and Drug Administration, but Reloxin (known as Dysport in Europe and manufactured by



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Ipsen) is likely to enter the market this year.

It's difficult to directly compare Botox and Reloxin because the dosage units are registered differently (3:1 vs. 2.5:1, respectively), but Dr. Monheit maintained that the potency of the products "is essentially the same. The more units you put in of either, the more potent and the more the action is. But you have to look at each one of these [products] as a dif-

ferent drug. You can't truly convert back and forth because there is no direct scale to compare the units."

Because Botox is a heavier molecule than Reloxin (900 kd vs. 500-600 kd), some clinicians have presumed that Reloxin would tend to diffuse or migrate from the site of injection, leading to more adverse reactions than are seen with Botox. However, this presumption did not pan out in the phase III clinical studies of Reloxin.

"Diffusion is not relevant," commented Dr. Monheit, who was a clinical investigator for the Reloxin studies. "Spread or field of effect is dependent on dosage, dilution, and technical infection variables. Clinical data supports safety and efficacy at correct dosage and technique."

The phase III clinical trials of Reloxin demonstrated that the product's onset was in 2-3 days but occurred as soon as 24 hours for others. The average duration was 118 days.

Another neurotoxin in the pipeline is Xeomin, manufactured by Merz Pharmaceutical. One vial of the product con-

tains botulinum neurotoxin type A free of complexing proteins, human serum albumin, and sucrose.

Xeomin is approved for use in Germany, and phase III clinical trials are currently underway in the United States. "Hearing Europeans who've used it, it seems very similar to Botox in its effect," said Dr. Monheit, who practices dermatology in Birmingham.

PurTox (Mentor Corp.) is also being investigated. This neurotoxin contains botulinum neurotoxin type A, yet it lacks the surrounding hemagglutinin protein complex. Phase II trials in the United States demonstrated that the end points of efficacy, safety, and longevity were similar to that seen with Botox for glabellar rhytides. "Its onset seems to be similar to Reloxin, while its activity is similar to Botox," Dr. Monheit said.

Phase III trials of PurTox in the United States began in July 2007.

Dr. Monheit reported that he is a consultant and clinical investigator for several pharmaceutical companies including Allergan, Ipsen, and Mentor Corp. ■

Starting With Massage, Expert Offers Tips for Filling Lips

BY BRUCE JANCIN

PHOENIX — What's the most important aspect of filler technique for the lips?

Massage, Joseph Niamtu III, D.M.D., said at the annual meeting of the American Academy of Cosmetic Surgery.

"When you see someone who comes in from another office and they're unhappy and their lip is all lumpy, that's because there was no massage," said Dr. Niamtu, an oral and maxillofacial surgeon at Virginia Commonwealth University, Richmond.

"I keep a little dollop of Vaseline on the back of my glove that I use in massaging the lip," he explained. "I think it's so important to distribute that filler and make it nice and smooth; otherwise it can get pretty lumpy."

Dr. Niamtu presented a wide-ranging set of clinical pearls re-

garding facial filler injections. "Fillers are really exciting. They're so popular. And in this down economy, as the use of some procedures has gone down, the fillers and Botox [botulinum toxin type A] have gone up. I tell people if you can decorate a cake or caulk your bathtub, you can do fillers," he said.

Among the clinical pearls Dr. Niamtu discussed were how to effectively use miniblocks for optimal pain control, the value of a 0.9-mm fat-injecting cannula, and how to reverse an overaggressive correction:

► **Control pain.** "There's no doubt about it: If you make this a painless experience, you will overcome your competition," he said. As soon as his patients take a seat, a topical anesthetic is applied to the skin and mucosa, followed by ice to enhance the numbness, and then a series

of small dental injections that Dr. Niamtu calls "miniblocks."

He said he dislikes conventional nerve blocks because they cause hours of drooling numbness. Instead, he administers a series of 0.2- or 0.3-cc injections of 2% Xylocaine (lidocaine HCl) with 1:100,000 epinephrine through a 32-gauge needle at four or five sites between the cuspids. These submucosal miniblocks are placed just above the sulcus of the upper lip and just

below the sulcus of the lower lip. He also anesthetizes the nasolabial folds, injecting 0.2 cc of local anesthetic solution deep in a couple of places.

After a few minutes the perioral area is well anesthetized. Sensation returns within an hour after the procedure.

► **Use a 0.9-mm fat-injecting cannula.** A remarkably atraumatic way to get filler into the lip, the fat-injecting cannula glides easily through soft tissue.

"This has really changed my practice," Dr. Niamtu said. "You simply anesthetize the lip and make a puncture with an 18-gauge needle. The cannula fits right on the filler syringe. You insert it and inject as you withdraw; I tell the patient we're putting air in the tire. Although it looks painful, it is much less traumatic than [multiple] needle sticks. This has really cut down

on my postoperative swelling and bruising. I really like this when I'm doing volume."

► **Get the right depth in lip injections.** The target is the potential space between the mu-



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cosa and underlying muscle. "If you're in that potential space, you should have very low syringe pressure with very free flow antegrade and retrograde. If you are not in the correct space—in which case you're usually too superficial—you get blanching, increased syringe pressure, and you don't get the nice flow," he continued.

► **Don't forget the philtrum.** The philtrum and philtral columns are the most overlooked areas of the lip, in Dr. Niamtu's view. The philtral columns can be reconstructed with a conical injection from the alar base down to the vermilion border.

► **Blunt the nasolabial folds.** The most common mistake here is undertreatment. It takes two syringes of filler to get a good result in an adult.

"In this economy people

don't want to buy two syringes, they want one syringe. I tell them, 'Save your money and come back,'" he said.

For injection of a fold or wrinkle with a hyaluronic acid filler, the improvement should happen right before the operator's eyes; otherwise the needle isn't in the right place.

"Now, if you're using silicone or Sculptra [poly-L-lactic acid], you will have some growth over time. But it's not going to get better tomorrow when you're using the hyaluronic acid fillers. If you don't see that improvement right away, you're probably too deep," he said.

► **Reverse overcorrection.** "Hyaluronidase is a savior. It's so nice to be able to tell patients you can reverse things they don't like," he explained.

Simply reconstitute the hyaluronidase with local anesthetic and inject it into the area of excess filler. It will dissolve hyaluronic acid filler in 24-48 hours and sometimes faster.

► **Choose the right filler.** Twenty years ago the choice was simple. Today there is a confusing array of fillers available, with yet more in the developmental pipeline.

"Now we're effectively bartenders," Dr. Niamtu observed. "Good injectors can do magic with just about anything."

Dr. Niamtu reported having no financial conflicts of interest regarding his presentation. ■



COURTESY DR. JOSEPH NIAMTU III

Using a 0.9-mm fat-injecting cannula instead of a needle is less traumatic; the entire lip can be treated with a single puncture.