Deep Injection Technique May Prolong Results

Tri-site bolus technique treats an area often uncorrected after facelift or blepharoplasty.

By Jeff Evans
Senior Writer

Quebec City — A series of deep injections with hyaluronic acid fillers to lift the cheek and lower eyelid regions appears to provide long-term cosmetic results. Wayne Carey, M.D., said at the annual conference of the Canadian Dermatology Association.

Deep injections of hyaluronic acids have been thought conventionally to be quickly absorbed if injected below the dermis, but deeper bolus injections appear to have long-lasting effects, said Dr. Carey, director of dermatologic surgery at McGill University, Montreal.

Dr. Carey’s “tri-site bolus technique” delivers a bolus of hyaluronic acid to tissue about 3-15 mm deep into subcutaneous, suprapriosteal areas, unlike other procedures that employ a threading or microdroplet technique to inject filler to a depth of only 1.2 mm.

“This is a treatment that addresses the midface aging that is not corrected by facelifts or blepharoplasty,” he said.

The technique increases the cheek volume, allows sculpting of the cheek, he explained. It often makes a lower eyelid blepharoplasty or standard facelift unnecessary.

During the procedure, Dr. Carey asks his patients to sit erect while he delivers a continuous deep injection without anesthesia, without moving the needle, and without massaging the injection area; this forms a non-visible, subcutaneous nodule. Right-handers inject with the right hand and control the migration of the material with the left hand.

He typically injects 1-3 syringes (each is 0.8 ml.) into the upper cheek area on each side, although on average he injects 2-5-3 syringes per side. The first site of injection is usually around the location of the infraorbital nerve, followed by the zygomatic and naso-jugal sulcus areas.

The effects of the technique have lasted over 18-24 months of follow-up and even up to 4 years in one woman, said Dr. Carey, who said he has no conflicts of interest regarding any hyaluronic acid products.

Although Dr. Carey has used only Perlane and Juvederm 30 in more than 75 patients he has treated with his technique, he suggested that deep, bolus injections with Restylane or Hylaform would theoretical-ly give the same longevity seen in his patients, he said in an interview. Perlane and Restylane produce a more immediate appearance in the first few days after injection than other hyaluronic acid products, such as Juvederm, because they draw in more wa-ter from their surroundings.

The bolus technique may last longer than other procedures that inject hyaluronic acid products into the dermis because the nodule that is formed with the technique has a lower surface-area-to-volume ratio, making less hyaluronic acid available for hyaluronidase to break down. The body also might wall off the nodule, which would also make it less sus-ceptible to hyaluronidase, Dr. Carey suggested. In a re-port, a biopsy of an injection site where Restylane persisted for 3 years showed a fibrotic reaction (Ophthal. Plast. Reconstr. Surg. 2004;20:317-8).

Heavy bruising lasting up to 1 week has been a significant problem in most patients who received the injections. One patient had prolonged pigmentation, which might be deposits of hemosiderin or postinflam-matory hyperpigmentation, he said. Another patient has had persistent, unilateral lymphedema for about 2 months, but has improved during the last few weeks, Dr. Carey said. He is considering injecting hyaluronidase into the treatment site to relieve the complication.

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FDA Unveils iPLEDGE Program

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say is long overdue,” said Sandra Kwed-er, M.D., deputy director of the FDA’s Of-fice of New Drugs.

The program’s implementation will be incremen-tal, starting with the Oct. 31, 2005, deadline for registration of wholes-alers and pharmacies to obtain isotretinoin from a manufacturer. Prescribing physicians and their patients will then have 2 more months to be registered and in full compliance. Under the pro-gram, wholesalers of Accutane or the four currently approved generic equiva- lents will distribute isotretinoin only to pharmacies that have registered with the safety program and continue to demon-strate ongoing compliance.

Those pharmacies will only dispense prescriptions when the prescribing physi-cian has registered the individual patient being treated and certified that the patient has been informed of the teratogenicity risks and has had two negative pregnancy tests, including one in the physici-an’s office. Patient registration will be done over the Internet or by phone.

Patients must also register themselves

and sign a consent form agreeing to use two forms of birth control while on the drug. Patients will be required to have re-peat pregnancy testing every month while they are on the drug and another 1 month after they stop. Prescriptions will now be filled within 7 days of preg-nancy testing.

The package insert and the patient in-formed consent form have been updated and now contain a new warning that there have been suicides reported in patients tak-ing isotretinoin. Both inform patients about what signs to watch for and tell them to contact their health care provider if they recognize any of those signs.

In its information sheet for health care providers, the FDA says that the reported number of suicides of patients taking isotretinoin between 1982 and 2004 was actually lower than the number of suicides that would be expected in that population (165 reported suicides vs. 220 expected). However, in patients on isotretinoin, studies have shown that isotretinoin can affect the brain and behavior, which means that the contention that isotretinoin could be as-soiated with depression and suicide is bi-ologically plausible.

In concert with the new dedication to monitor and control access to the drug very tightly, the FDA is also going to make a renewed effort to prevent Internet sales and discourage drug importing from abroad, Dr. Kweder said.

The new program replaces the old SMART program and the other similar programs for the generic products. Under SMART, physicians who wanted to pre-scribe Accutane needed to complete an edu-cation program to obtain the yellow stick-ers that needed to be attached to the paper prescriptions for pharmacies to fill the prescrip-tions. When attaching a stick-er, the physician was also required to regis-ter the patient and to certify that the pa-tient had undergone pregnancy testing and that the results were negative.

FDA determined that the SMART pro-gram needed to be replaced with a more iso-tretinoin acts because data from the first 2 years of the program, which went into effect in 2002, showed that it had not significantly reduced the rate of pregnan-cies occurring in patients on isotretinoin, which was its aim. Some also claimed that not all physicians were being fully com-pliant with the pregnancy testing require-ment of the program.

Moreover, too few patients were signing up with the voluntary patient registry that was a part of the program.

Kenneth Bloom, M.D., a pediatric der-matologist in Minneapolis, said he was un-neved by the lack of details that were available about the new program.

One purported advantage of the new program is that it will make things simpler for physicians by combining the special-ized programs unique to each isotretinoin manufacturer.

But the purpose of the new program is not to lessen restrictions on the drug, Dr. Bloom noted, adding that he is not har-boring hope that the new program will ease what physicians are required to do.

“I have no idea what I am getting my-self into,” Dr. Bloom said. “I think it is go-ing to be more time consuming.”

The FDA estimates that 100,000 pre-scriptions are written for isotretinoin in the United States every month. The number of prescriptions written initially dropped about 20% when the SMART program went into effect, but it has remained sta-tionary since then.

Physicians can find out more by calling 866-495-0654 or by visiting www.ipledge.com, which will be available soon.

Final results were achieved after injection of 13 syringes of hyaluronic acid.