Fillers for Every Niche

Soft tissue fillers are now a staple for physicians offering medical aesthetic procedures. According to the American Society of Aesthetic Plastic Surgery (ASAPS), physicians performed more than 5 million procedures using botulinum toxin or soft tissue fillers in 2008. In June 2009 the ASAPS presented the results of its latest study, which found that 7 out of 10 patients who received botulinum toxin injections also received treatment with hyaluronic acid fillers. Nearly 7 out of 10 respondents said Botox Cosmetic (Allergan, www.botoxcosmetic.com) and hyaluronic acid dermal fillers were important parts of their aesthetic routine. And 87% of the women surveyed openly discussed their cosmetic injections with other women—a source of great referrals for doctors who do praiseworthy work.

By Linda W. Lewis

Fillers for Every Niche

While there have been no new filler products introduced since we did our last overview of this category in the November/December 2008 issue, that doesn't mean important changes haven't occurred. Our distinguished panel of physicians talks about new approvals from the U.S. Food and Drug Administration, the latest trends and how they're responding to the FDA investigation into filler safety.

ME: In July 2009, BioForm Medical announced FDA approval for mixing lidocaine with Radiesse (www.radiesse.com). The technique was developed by Mariano Busso, MD, and first published in the *Journal of Dermatologic Surgery* in June 2008. Will this FDA approval have a significant effect on your practice?

Dr. Narurkar: Radiesse with lidocaine has already had a significant impact on my practice, specifically for dorsal hand rejuvenation. I use the technique developed by Dr. Busso; it is safe, offers both an immediate and long-term effect with a single treatment and is much more comfortable with lidocaine. Combined with laser resurfacing, hand rejuvenation with Radiesse gives patients a real solution for aging hands.

Radiesse is also my choice for deep volume loss in the face, particularly for men who have deep nasolabial folds. Mixing lidocaine with Radiesse means I no longer have to do nerve blocks, and I find that the formulation is easier to inject than Radiesse alone.

Dr. Werschler: Radiesse is a powerful structural enhancer. Unlike other fillers, it provides immediate volume, lift and long-term collagen stimulation. I find it especially useful for shaping facial features, such as the cheeks, and for lifting of the nasolabial and labiomental folds. Radiesse is uniquely qualified for what we term "RAVE" or regional aesthetic volume enhancement. The FDA approval for mixing gives the physician the option to mix 0.5%, 1% or 2% lidocaine and to choose with or without epinephrine. Thus, it is ultimately flexible and advantageous over pre-mixed.

ME: Sculptra was FDA-approved for lipoatrophy in 2004 and has since been widely used for aesthetic purposes. In late July 2009 Sanofi-aventis U.S. announced that Sculptra Aesthetic (www.sculptraaesthetic.com)—same product, expanded name—gained FDA approval for shallow to deep nasolabial folds and other facial wrinkles. What impact has Sculptra/Sculptra Aesthetic (injectable poly-L-lactic acid) had on your practice and what are your expectations going forward?

Dr. Eviatar: I have used Sculptra for years off-label for aesthetic purposes as well as for HIV lipodystrophy correction. I find it to be an ideal, long-lasting agent for recontouring, improving skin quality and adding volume diffusely to the face. It is the only agent that works solely by stimulating the patient's own collagen and so it plays a large part in my aesthetic practice.

> "Because stimulatory fillers are longer lasting and stimulate collagen, they have unique advantages."

Dr. Narurkar: I am still cautious about using Sculptra as I am still concerned about the development of delayed distal nodules, and many patients cannot afford the downtime associated with the multiple injection sessions needed to achieve the final effect.

Dr. Pickart: Sculptra Aesthetic is my favorite global filler. It works as well as fat grafting without a major operation. I've been using Sculptra for

MEET OUR PANEL

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Joseph Eviatar, MD, ophthalmic plastic surgeon, Chelsea Eye & Cosmetic Surgery Associates in Manhattan.

Vic A. Narurkar, MD, chief of dermatology, California Pacific Medical Center in San Francisco, and associate clinical professor of dermatology, UC Davis Medical School.

Steven J. Pearlman, MD, FACS, facial plastic surgeon, Pearlman Aesthetic Surgery, New York.

Michael Pickart, MD, FACS, Pickart Plastic Surgery, Ventura, California.

Alexander Z. Rivkin, MD, Westside Aesthetics, Los Angeles, California.

William P. Werschler, MD, Spokane Dermatology Clinic, assistant clinical professor in medicine and dermatology at the University of Washington and current president of the American Society of Cosmetic Dermatology and Aesthetic Surgery.

several years, and Sculptra Aesthetic is not a change. It has a good track record here and abroad.

Dr. Rivkin: I use Sculptra for areas like the cheeks and temples to help patients with hollows in those areas. Sculptra works well for this select group of patients, but I have to counsel them in detail about expectations. Since Sculptra is a collagen-stimulating agent and not a filler, patients should understand that they are going to see minimal improvement after the first session. I tell them that the initial fill disappears after a few days and the collagen stimulation takes several weeks to happen. They should expect three injection sessions for maximal effect, separated by about four weeks. It winds up being fairly expensive at $1,000 per bottle, but the effect lasts for two years.

Dr. Werschler: Because stimulatory fillers are longer lasting and stimulate collagen, they have unique advantages. They are more robust, having greater ability to lift and hold tissue, thus are more useful for shaping facial features. However, they are a poor choice for areas of concentric movement, such as the lips, eyelids and areas of thin skin.

Where diffuse areas of dermal thinning are widespread, Sculptra is the best product to thicken the dermis and provide "global facial volume enhancement." No other product currently FDA approved is capable of doing the same.

IN THE PIPELINE

In addition to Juvéderm with lidocaine (Allergan, allergan.com), which is currently being considered by the FDA, there are several more notable products in the pipeline.

A clinical trial for Juvéderm Voluma, a hyaluronic-based filler for volume replacement currently available in Europe, is now underway. The filler is not yet filed with the FDA.

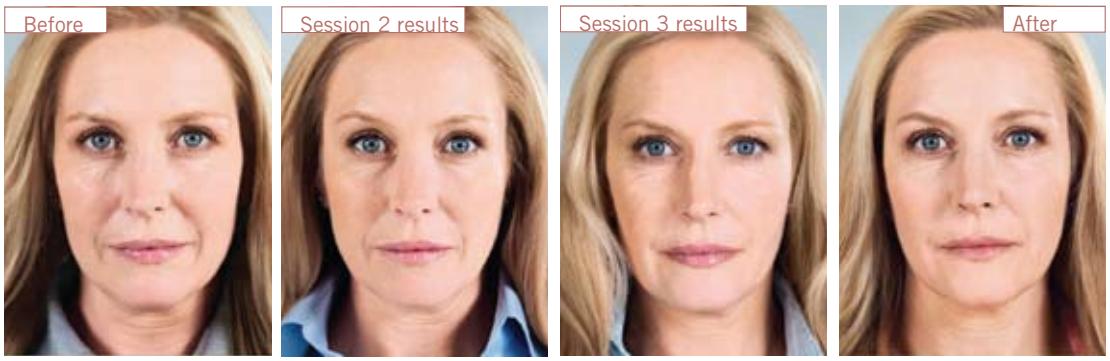
Developed by a Danish pharmaceutical company, Aquamid (aquamid.com) has been submitted for FDA approval by Contura. The injectable water-based polyacrylamide gel has a history of use in intraocular lenses and has been used as a dermal filler in Europe for years. A European study of Aquamid followed patients for five years and found no serious adverse reactions. "I am looking forward to the expansion of the permanent filler category as Aquamid goes through the FDA process," says Alexander Z. Rivkin, MD, Westside Aesthetics, Los Angeles, California, who specializes in nonsurgical cosmetic solutions. "My experience in the clinical trials was excellent. I think it is going to be a welcome addition to the filler arsenal."

Belotero Balance (Merz Pharmaceuticals, merzusa.com) was recently accepted for FDA review. The hyaluronic-based monophasic gel filler utilizes a cohesive polydensified matrix (CPM) technology and is seeking approval for mid-to-deep dermis injection for the correction of moderate to severe wrinkles and folds.

Dermapearl comes from the Council for Scientific and Industrial Research in Pretoria, South Africa. It consists of hollow, ported polymer microparticles in hyaluronic acid, which means it has possible tissue regenerative properties that may provide a longer lasting effect than other hyaluronic acid fillers. The Dermapearl business plan was the runner-up in the 2008 SA BioPlan Biotechnology Business Plan Competition and will be commercialized with the help of a partner in the dermal filler market.

ME: Last year Mentor introduced Prevelle Silk (www.prevelle.com), which it said was the first of several products the company would be combining with lidocaine, and Anika Therapeutics launched Elevess, which is now being distributed by Coapt Systems as Hydrelle (www.hydrelle.com). Currently, Juvéderm (www.Allergan, juvederm.com) is awaiting FDA approval for its lidocaine mixture. Do you consider this a significant trend?

Dr. Eviatar: It may be a trend but it



Sculptra, used off-label for aesthetic volume replacement, recently received new FDA approval for cosmetic indications under the name Sculptra Aesthetic.

Photo courtesy of Sculptra Aesthetic

is nothing new. Over the past two years, I have been adding lidocaine to both Juvéderm and Restylane/Perlane, off label, with excellent results. I have not tried Hydrelle.

Dr. Narurkar: For lips I use Juvéderm mixed with lidocaine because it offers better flow and produces less edema. I'm anxiously awaiting Juvéderm with lidocaine.

Dr. Pickart: Hydrelle is an outstanding product for oral commissures. They are particularly difficult to anesthetize and this soft hyaluronic acid with lidocaine makes filling them much easier for me and the patient. Some colleagues have told me they won't use Hydrelle because it is associated with sterile abscesses. Not one has ever experienced this complication on any of their patients, but they've heard it's a problem. I have never seen this complication and think it would be more attributable to injection technique than the product.

ME: Two recent introductions—Evolence (www.evolence.com), launched late in 2008 by Ortho Dermatologics, and Artefill (www.artefill.com), the only FDA-approved permanent filler—gained a lot of coverage and then seemed to drop from the radar screen. Are these products still significant?

Dr. Eviatar: I have recently incorporated Evolence. I feel it is not a significant improvement over other fillers but have added it for patients who may want a less expensive product or who ask for it by name.

Dr. Pickart: I've been using Evolence for nearly a year and find it to be an excellent alternative for patients who bruise easily or tend to have more swelling with hyaluronic fillers. It does tend to be lumpier than hyaluronic acid fillers—not visible lumps, but patients can feel them, and some complain about this. It is my preferred filler for my mother, who is in her 70s. She had incredible bruising with other fillers and does great with Evolence. Other doctors may find it's a good alternative for older women.

Dr. Rivkin: Evolence is a good filler. I use it for nasolabial folds. Patients who need a last-minute fill for a special event are especially good candidates for this filler since bruising and swelling are so much less than with other fillers. I do need to inject one syringe per side and that can get a bit pricey for my patients. Nevertheless, I am using more of it all the time. One issue with Evolence is that it does hurt more

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than the HA fillers. Instead of using topical cream, I have to do a lidocaine block with Evolence.

I've used Artefill since it first became available in 2007. In fact I was all set to do a study of its use in correcting cosmetic nasal defects when Artes Medical filed for Chapter 7 bankruptcy in December 2008. We were left with the product for the study so we went ahead with it anyway. As a result, I have a great deal of experience with Artefill. Because the polymethylmethacrylate is in a collagen vehicle, the volume slowly diminishes after injection. On the plus side, this means it is difficult to overcorrect, but on the minus side, you often need several injections to achieve the desired correction. I have never seen a granuloma or any other long-term complication using Artefill—and I have done more than 200 noses with it—so I consider it extremely safe and dependable. Fortunately, it is now available once again from Suneva Medical.

ME: In November 2008, the FDA asked independent advisers to review the safety of dermal fillers, citing its concern that fillers are being used for unapproved, untested purposes, such as for plumping the lips. The agency is now asking for guidance on testing fillers and ways to better explain the risks to patients. Is there an important safety issue? How would you characterize the dangers?

Dr. Narurkar: I think it is important to review fillers periodically and to look at their performance in different areas. There are certainly greater risks for using these products, which are usually approved for use in nasolabial folds, in lips and tear troughs. The biggest problem, though, is not the products, which I believe are inherently safe. It is unqualified or untrained injectors. We need better patient education and better training for physicians. Anybody performing these injections should have a complete understanding of facial anatomy.

Dr. Pickart: There's no question about the inherent safety of any of the dermal fillers I use. It's all about the quality of the person doing the injecting. A physician with one afternoon of instruction is likely to have problems injecting fillers and neurotoxins; there is bound to be a learning curve. This is not a problem for the FDA but something the medical boards of each state should address.

Dr. Rivkin: Safety is always the

first concern with aesthetic procedures.The FDA does comprehensive safety testing before approving any filler—the most rigorous in the world. Physicians who use these products must be well educated as to optimal techniques and best practices. Physicians need to be conscientious and must be encouraged by their peers, medical societies and manufacturers to keep up with developments in aesthetic techniques to provide their patients with good informed consent.

ME: Fat transfer has been getting a lot of coverage lately as a result of new studies documenting the viability of fat cells harvested during Vaser Lipo (Sound Surgical Technologies, www.vaser.com) How does fat transfer compare to other injectables as a dermal filler option?

Dr. Bassin: Fat harvesting equipment such as the Body Jet (Eclipsemed, **www.eclipsemed.com**) have improved the viability of the fat cells removed when compared to traditional harvesting techniques. This accounts for a greater predictability or "staying power" for transferred fat, which improves our ability to provide permanent filling with a natural substance.

Dr. Pearlman: Fat transfer is a surgical procedure. The patient needs to be sedated, and there is a significant recovery period. Given the healing time, the intensity of the procedure, and the fact that there are so many good dermal fillers on the market—I can take something off the shelf that requires no sedation, no harvesting and offers very little downtime—it makes it difficult to recommend fat transfer unless the patient is already undergoing sedation.

I use it most often as an adjunct to facelifts to restore volume in the cheeks and mid-face, because the patient is already sedated and prepared to undergo a fairly lengthy recovery period from the surgery. The harvested fat can be lumpy so you need to be careful around the eyes where the skin is thin.

Fat transfer is in the same category as Sculptra and Radiesse in that it is thicker and indicated for extensive volume loss. It is not a good choice for the nasolabial folds or lips.

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