

Proper Technique Delivers Optimal Filler Effects

BY DAMIAN McNAMARA
Miami Bureau

NAPLES, FLA. — Proper technique is paramount to optimize outcome and avoid complications with either calcium hydroxyapatite or poly-L-lactic acid fillers, according to a presentation at a Dermatology Foundation-sponsored symposium.

Infiltration of local anesthesia, needle size, injection technique, multiple treatment sessions, and tips to avoid complications are among clinical pearls for optimal use of calcium hydroxyapatite (Radiesse, BioForm Medical) and poly-L-lactic acid (Sculptra, Sanofi-Aventis).

"Radiesse is for structure and support and Sculptra is for diffuse volume," said Dr. Ken K. Lee, director of dermatologic surgery at Oregon Health and Science University in Portland. The two fillers are not mutually exclusive, he added. "I use these two together all the time."

Focal treatment is the goal with these fillers, Dr. Lee said. "There is a paradigm shift from filling to contouring. Contouring really was only available before with fat transfer." The gauge of needles typically used to inject calcium hydroxyapatite (27G) or poly-L-lactic acid (25G or 26G)

can hurt, Dr. Lee said. He recommended local infiltration with lidocaine with epinephrine prior to injection to reduce pain and bruising. Dr. Lee does not have a disclosure regarding either filler product.

The goal with calcium hydroxyapatite is not to fill in fine lines, but to give more structure, Dr. Lee explained. The synthetic particles form scaffolding for tissue in-growth. "It is off label for cosmetic use—I do tell patients that."

Radiesse is packaged in 1.3-cc and 0.3-cc syringes. Inject into "deep dermis and a little bit into subcutaneous fat," Dr. Lee said. He recommended a threading and fanning technique, injecting only a small amount at each pass, such as 0.05 cc. Stop injection before exiting the skin and knead or mold any firm nodules after injection, he suggested.

"I don't just thread the material along the nasolabial line, I also crisscross to enhance the volume effect," Dr. Lee said. "This stuff is really thick and hard to get out of the needle, which is good. You don't want a lot of material in any one area."

Dr. Lee informs patients in advance that if they have prominent nasolabial lines or marionette lines they will likely need three syringes over two treatment sessions. "Then it doesn't look like you've failed them."

Volume from a single injection typically lasts about 9 months, Dr. Lee said. The double session strategy extends duration of effect to 1 year or longer. "Somehow getting it to last up to a year is much more appealing to patients. The downside is that complications last a long time, too."

Avoid filling thin eyelids and lips with calcium hydroxyapatite, Dr. Lee advised. Deposits can be seen in these areas. Dr. Lee said, "I really recommend collagen or hyaluronic acid for lips."

Poly-L-lactic acid, similar to calcium hydroxyapatite, is injected into the deep dermis or subcutaneous layer. Do not inject this filler superficially, Dr. Lee cautioned. "I aim for the subcutaneous layer. It is more difficult to consistently place in deep dermis and there are more complications." Inject a small amount on withdrawal.

Poly-L-lactic acid is a synthetic, biodegradable, biocompatible polymer that stimulates a patient's own collagen. Dr. Lee

reconstitutes the filler with sterile water and 2% lidocaine. It is stable up to 72 hours after reconstitution. The vial is stored at room temperature but should be warmed prior to use, Dr. Lee suggested. "I have the patient hold the vial prior to injection. It helps to avoid clogging of the needle."

Massaging right after injections is very important, Dr. Lee said. "I tell patients to massage five times a day for 5 minutes for 5 days for distribution of the Sculptra."

Up to six treatment sessions may be necessary for full effect. Schedule treatment sessions about 4-6 weeks apart, Dr. Lee suggested. Volume enhancement with poly-L-lactic acid can last 2 years or more.

Hematoma is the most commonly reported complication in studies, Dr. Lee said. Subcutaneous papules are another potential problem. "You really have to be careful," he said. "Sculptra in cosmetic patients has really shown me how much volume affects the drooping of the skin." ■

Prolonged Sedation Is Safe for In-Office Facial Plastic Surgery

BY MARY ANN MOON
Contributing Writer

The duration of anesthesia does not correlate with morbidity or mortality in facial plastic surgery performed in an office-based facility, reported Dr. Neil A. Gordon of Yale University, New Haven, and Dr. Marc E. Koch of the State University of New York at Stony Brook.

The investigators conducted what they described as the first study to quantify morbidity and mortality in in-office procedures lasting longer than 4 hours, because no study to date has presented specific outcomes data on such surgery. Despite this lack of data, "state medical boards and government agencies have rushed to regulate office-based surgery" in response to reports of six patient deaths in Florida, they said (*Arch. Facial Plast. Surg.* 2006;8:47-53).

Their study included a retrospective analysis of 492 cases of facial plastic surgery performed at a single private-practice surgical facility from July 1995 through March 2000 and a prospective analysis of 708 cases performed from April 2000 through February 2005. The cases were divided into those lasting less than 4 hours (168 cases) and those lasting longer (1,032 cases).

Most of the latter group underwent combined procedures for facial rejuvenation, such as rhytidectomies, blepharoplasties, brow lifts, and laser surgery to resurface the skin. The procedures required an average of 306 minutes. Combined procedures that take a relatively long time often are necessary "to appropriately treat the aging face as a unit, thereby preventing the disharmonious appearance produced when portions of the aging face are treated and portions are left untreated," the investigators said.

The shorter procedures were mostly isolated rhinoplasties. The average patient

age was 55.7 years. Just over half the patients were older than 51 years, and almost 12% were older than 65.

There were no deaths, no myocardial infarctions, no cardiac arrhythmias, and no pulmonary embolisms.

Three cases of major morbidity occurred (a 0.25% rate), none of which were directly related to procedure duration. A 59-year-old man developed aspiration pneumonia secondary to an obstruction event on extubation, a 53-year-old woman had a cerebral hemorrhage for unknown reasons, and a 52-year-old woman had an anaphylactic reaction to cephalosporin.

"We had no cases ... in which inpatient care would have prevented these major morbidity events from occurring or being treated optimally," the researchers said. In fact, it can be argued that receiving intubation for general anesthesia rather than local anesthesia in the office setting actually helped the latter two patients. Because they had secure airways at the time of the events, the surgical team was able to immediately and continuously oxygenate these patients while resuscitating and treating them. "This directly maximized their outcomes and prevented further morbidity, if not mortality," Dr. Gordon and Dr. Koch noted.

"Contrary to reports that longer procedure duration causes a higher incidence of intractable postoperative nausea, vomiting, and pain, thus necessitating higher precautionary hospitalization rates if performed in the office-based environment, we had no cases with any of these complications," they said.

According to the researchers, guidelines including "arbitrary" 4-hour cutoffs for in-office surgery duration—which have been adopted in Pennsylvania and Tennessee—are imposing "inappropriate, non-data-driven regulation" on office-based plastic surgeons. ■



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