

Phlebologists' migration into cosmetics: Promises and caution

By Daniel Friedmann, MD

Although the prevalence of chronic lower extremity venous disease within an ever-aging population continues to rise,¹ barriers to treatment – in no small part due to the lack of attention afforded by insurance companies and healthcare systems for this widespread condition – and the unrelenting threat of reimbursement cuts have become the norm in our field. The fact that patients with clear-cut, symptomatic superficial venous insufficiency must first undergo a two- to four-month trial of compression stockings in the face of evidence to the contrary, including multiple clinical practice guidelines²⁻⁴ detailing greater efficacy and cost-effectiveness of primary treatment with saphenous ablation, is just the tip of the iceberg of the inadequacies and incongruity of the current system. It is therefore not surprising that, in the midst of these many headaches, phlebologists have sauntered over to the cosmetic arena.

First of all, phlebologists have unparalleled experience with the treatment of cosmetic telangiectatic and reticular veins of the lower extremities. Cutaneous sclerotherapy and/or laser surgery are now the mainstay of therapy for these vessels on a worldwide scale. Moreover, the cosmetics field will assuredly never be subjected to such things as “meaningful use” criteria or have its decision making usurped from competent physicians by insurance company policies. It is a purely capitalistic enterprise within an increasingly socialized system of medicine. Although plastic and dermatologic surgeons perform the majority of outpatient cosmetic procedures within the United States, other specialties have had a progressively larger role over the past few decades.⁵

While I was fortunate enough to have been trained in both cosmetic dermatology and phlebology during my fellowship, this is the exception and not the rule. The majority of phlebologists begin offering these procedures well into their career, often with the aid of a mid-level physician extender, such as a nurse practitioner (NP) or physician assistant (PA). Commonly performed procedures include tumescent liposuction, laser resurfacing, photorejuvenation, skin tightening, and neuromodulator and soft-tissue filler injections. All of these (for the most part) lie within the umbrella term “minimally invasive.” Yet this in no way implies that these modalities are devoid of significant and serious potential adverse events.

Given that phlebologists are very adept at using tumescent anesthesia for saphenous and nonsaphenous vein ablation, many are now conceivably parlaying that skill into the practice of liposuction. The popularity of liposuction has increased dramatically over the past two decades, especially among non-core cosmetic practitioners, with liposuction constituting 10 percent of all ambulatory cosmetic procedures performed in the United States between 1995 and 2010.⁵

Dr. Jeffrey Klein's introduction of the tumescent technique in 1987 has fueled this interest, allowing liposuction to be performed completely under local anesthesia with excellent patient safety and aesthetic results.⁶ Although significant morbidity and mortality are possible with tumescent liposuction, virtually all of these cases have resulted from the concomitant use of general or deep IV sedation, often with multiple other procedures in the same session.⁷

Cutaneous ulceration/necrosis and persistent postoperative pain,

edema or ecchymosis are also rare yet possible. Post-procedural contour irregularities and asymmetry are avoided with an aesthetic eye and compulsive attention to detail, both of which are a product of experience. The need for a well-trained nursing staff and thorough preoperative patient instructions and realistic expectation management cannot be overstated.

The use of fractional laser resurfacing has skyrocketed since first demonstrated in 2004. Fine lines and wrinkles, enlarged pore size, pigmentation, scars and stretch marks have all been shown to improve following treatment. Fractionated lasers create microscopic wounds that spare intervening tissue, leaving up to 95 percent of skin uninvolved in treated areas, a vast difference from the confluent thermal damage produced by earlier laser technology.⁸

Nonablative fractionated lasers do not vaporize the top layer of skin like their ablative counterparts, leading to less procedural discomfort, post-treatment downtime, and adverse events, at the expense of more marginal and protracted results that demand numerous treatment sessions.

While I prefer to utilize ablative fractionated lasers in the majority of my patients, many still prefer to undergo less aggressive treatments with nonablative devices. Edema, blistering, infection, pigmentary changes, herpes simplex virus reactivation, acne flares and scarring are possible side effects following treatment, all of which are more likely with ablative laser procedures. Although the ability of non-physician staff to perform cosmetic laser procedures varies by state, the ultimate responsibility rests on the supervising physician.

The market for injectable dermal soft-tissue fillers and neuromodulators also continues to expand rapidly. More than 3.2 million (primarily hyaluronic acid [HA]) filler procedures were performed in 2013 by dermatologic and plastic surgeons, an 10.8 percent increase over the previous year.^{9,10} Taking into account the patients treated solely by nurses, NPs, and PAs, the actual numbers are likely far greater. There are a number of advantages to HA fillers, especially for practitioners just starting out with cosmetic injectables.

First of all, the biocompatibility of hyaluronic acid across all species safeguards against hypersensitivity reactions. Moreover, the product is readily reversible with hyaluronidase, averting any long-term repercussions (e.g. papules, nodules, or bluish discoloration) from the placement of most HA fillers too superficially. Semipermanent fillers such as poly-L lactic acid (Sculptra Aesthetic, Valeant Aesthetics, Bridgewater, NJ), calcium hydroxylapatite (Radiesse, Merz Aesthetics Inc., Greensboro, NC), and autologous adipose tissue are also available for bulk volumization of facial areas suffering from soft tissue atrophy and bony resorption.

Given how widespread and commonplace soft-tissue filler injections have become, patients now expect nothing less than swift, painless and unobtrusive treatments. It is the job of the practitioner to consent patients appropriately and be intimately aware of how to mitigate and manage potential complications. A thorough understanding of the underlying anatomy is absolutely crucial and not uncommonly overlooked when tasking filler injections to mid-level providers.

Giovanni Battista Morgagni said it best: “Those who have dissected

or inspected many, have at least learnt to doubt; while others who are ignorant of anatomy, and do not take the trouble to attend it, are in no doubt at all.”

Up until the last few years, the most dreaded complication of facial filler injections was injection-site necrosis and subsequent scarring from distal arterial occlusion. The vast majority of these reports stem from large bolus, high pressure injections into the arterial system of the glabella or nasolabial fold.¹¹ More recently, retrograde arterial embolization from these same areas has been demonstrated to produce blindness via occlusion of ophthalmic and central retinal arteries, with nearly all filler types implicated.¹²

Although the migration of phlebologists into aesthetics is thus self-explanatory and not unexpected, given their fiscally and emotionally rewarding qualities, many of these procedures should be approached with due diligence and caution. It's not to say that phlebologists and their staff are not at liberty to perform them; however, comprehensive training and an understanding of potential adverse events are essential. **VTN**



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