

PROCEDURES

Lower Facial Rejuvenation: Small Procedures, Big Changes

Many patients can benefit from submental liposuction and chin implants

BY JOE NIAMTU III, D.M.D.

Lower facial rejuvenation is one of the most commonly requested procedures by patients from the late third decade on. Many of these patients have significant excess skin and jowls. For these patients, face and neck lift is the definitive procedure. There are, however, many patients (especially younger ones) who can benefit from a combination of smaller procedures. These are patients with chin deficiency, submental or jowl fat deposits, and mild to moderate skin excess.

It is surprising how many patients have recessive chins and submental fat deposits amenable to chin implant surgery and cervicofacial liposuction. If these patients do not have excessive neck skin, simple liposuction will cause a component of skin tightening and coupled with chin augmentation enable a synergistic lower facial rejuvenation.

Many dermatologists are accomplished at liposuction and already have expertise in this technique. Fat deposits in the lower face include the subcutaneous submental fat, the jowl fat, and fat deposits deep to the platysma (figure 1).



Figure 1. The common fat deposits in the lower face are shown.

Figure 2. Tumescent solution is injected into the intended areas of liposuction.

SUBMENTAL LIPOSUCTION

For submental liposuction, the patient is marked in the upright position. The mandibular border is marked, as is the actual fat pocket and jowl accumulations. It is important to mark the patient in the upright position because landmarks change in the recumbent position. Cervicofacial liposuction can be performed with tumescent anesthesia alone or in conjunction with IV or oral sedation.

It is surprising how many patients have recessive chins and submental fat deposits amenable to chin implant surgery and cervicofacial liposuction.

For the liposuction procedure, the patient is prepped and draped in the routine fashion. Then, 50-100 cc's of 0.1% lidocaine with 1:1million epinephrine are infiltrated in the submental region in the subcutaneous plane (figure 2). The jowls and the mandibular borders are tumesced with 25-50 cc's of the same solution.

Using a #11 blade, the surgeon makes a stab incision in the submental crease and uses small liposuction cannulas to begin the liposuction procedure. I favor small cannulas that become progressively larger (figure 3A). Depending on the amount of fat, I may work up to a large (3-4 mm) spatula cannula for finishing over the platysma. My real workhorse cannula is the 1 mm, three-holed cannula. Although I own a \$3,000 liposuction machine, I more often use simple wall suction, as it is more than adequate for these small areas. I begin with the small cannula and use it in a crisscross method to sculpt the fat. Although



small, these cannulas are surprisingly efficient. Most patients only need liposuction to the level of the hyoid or thyroid regions inferiorly and to the sternocleidomastoid border laterally (figure 3B). After using the small round cannula I switch to the flat spatula cannulas and use the 1 mm, 2 mm, and sometimes the 4 mm cannulas to finish the liposculpture. It is absolutely imperative not to remove too much fat in the submental area. It is even more important to leave adequate submental fat so the dermis does not scar down to the platysma, which can cause unsightly contractures and contour irregularities.

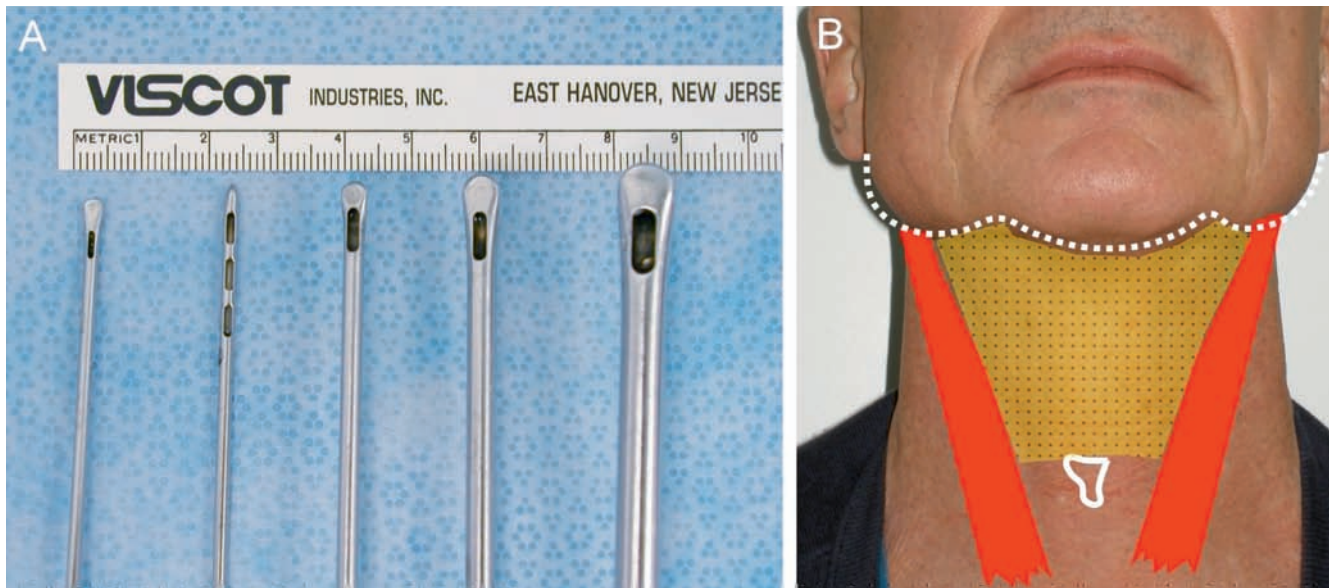
For the jowls, I prefer an approach

through the earlobes that tunnels along the inferior mandibular border to the jowl regions (figure 4). This is a safer approach to the jowls. Some surgeons prefer to approach the jowls from the submental region, but I believe the marginal mandibular nerve is more vulnerable from this approach.

The jowl areas in most patients represent fat deposition and ptotic tissue. Although jowl liposuction can improve the jowl area, excessive liposuction in this region can produce a noticeable depression and conservative treatment is judicious in this area.

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For those surgeons with experience in lipocutaneous flaps, the stab incision can be widened to a 2.5 cm incision and subcutaneous dissection performed with facelift scissors. This enables removal of some of the subplatysmal fat and allows the surgeon to perform a corset platysmaplasty. Great care should be executed in removing subplatysmal fat, as a significant depression ("cobra deformity") can result from overtreatment. Platysmaplasty can be performed easily. I use a large Kelly clamp to grasp the excess tissue (fat, connective tissue, and midline platysma) in the midline. I grasp the excess tissue with the clamp and cut along the base of the clamped tissue with electrosurgery. Then, with the excess midline tissues removed, I suture the medial platysma borders together in the midline with several 2-0 braided nylon sutures from the thyroid cartilage region to the inferior mandibular border. Performing limited platysmaplasty with liposuction can produce amazing tightening in the neck, but again this cannot be performed with significant excess skin or resultant "turkey gobbler" hanging skin can occur.

CHIN AUGMENTATION

To those unfamiliar with chin implants, the procedure may seem daunting, but the procedure is easy to learn. Other than the mental nerves, there is no significant anatomical structures to worry about in the subperiosteal plane. Chin implants may be placed from an external submental skin approach or intraorally.

I prefer to perform the liposuction first, then place the chin implant. I use the submental approach if I am already making a submental incision with platysmaplasty. For an isolated chin and liposuction procedure, I prefer the intraoral approach.

Figure 3. (above) Small progressive liposuctions are shown in figure 3 as is the borders of common submental liposuction.



Figure 4. Addressing the jowl fat through an earlobe incision is a safe and effective means of treating this area and also allows definition of the mandibular border.

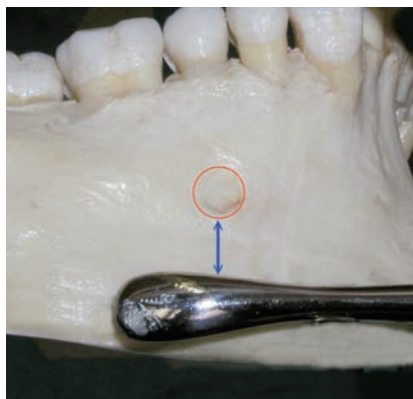


Figure 5. A periosteal elevator hugging the inferior border of the mandible will generally lie well beneath the mental nerve and foramen. Keeping the dissection at the level of the mandibular border in the area of the foramen protects the neurovascular bundle.

For the submental approach, a 2-2.5 cm incision is made at or just below the submental crease through skin, subcutaneous tissue, and periosteum directly to the mandible. Using a periosteal elevator, the periosteum is elevated superiorly over the mandible about 15-20 mm. Staying in the subperiosteal plane, the incision is carried laterally to the first or second molar region. It is imperative to keep the dissection below the mental nerve, which lies at the base of the second premolar tooth about 10-12 mm above the mandibular inferior border. Keeping the periosteal dissector on the inferior border of the mandible while dissecting posteriorly will protect the mental nerve (figure 5). The dissection is completed bilaterally and the pocket is irrigated with antibiotic solution. The silicone implant is then tucked in one side of the implant, across the midline and into the contralateral pocket.

Most implants will lie flush with the inferior border. I prefer to secure the implant to the mandibular midline with a single rigid fixation screw (figure 6), although many surgeons use a periosteal suture. One of the main causes of implant failure or bone resorption is implant mobility; the rigid fixation screw prevents this. The deep tissues are closed with 4-0 gut suture and the skin is closed with 5-0 gut or 6-0 nylon. Aligning the midline of the implant with the midline of the chin is imperative.

INTRAORAL APPROACH

The intraoral approach to placing chin implants also is very popular. It is performed easily, leaves no external scar, and provides excellent intraoperative visibility. In my hands, use of this approach has not increased the incidence of infection. Surgeons who claim a higher incidence of infection from placing chins through the oral cavity place their cheek implants through the mouth, so I don't agree with that argument.

The intraoral approach is performed by injecting 5 cc's of 2% lidocaine with 1:100,000 epinephrine through the skin to the level of the bone across the entire chin. An additional 5 cc's is infiltrated intraorally in the lower anterior vestibule into the mucosa and deep tissues. The lower lip is retracted



Figure 6. A single midline micro fixation screw will hold the implant in place, hasten healing and deter bone resorption from future implant mobility.

and an 2 cm incision is made through mucosa, orbicularis muscle, fat, mentalis muscle, and periosteum (figure 7). Once the periosteum is reached, the dissection is carried out as in the previously described approach. The periosteum is dissected to, or just below, the mandibular border inferiorly and to the level of the first or second molar laterally. The dissection is performed inferior to the mental foramen. Frequently, the nerve is not visible as it lies superior to the dissection, but on occasion it is visible and requires judicious protection.

The implant pocket (on all implants) should be just large enough

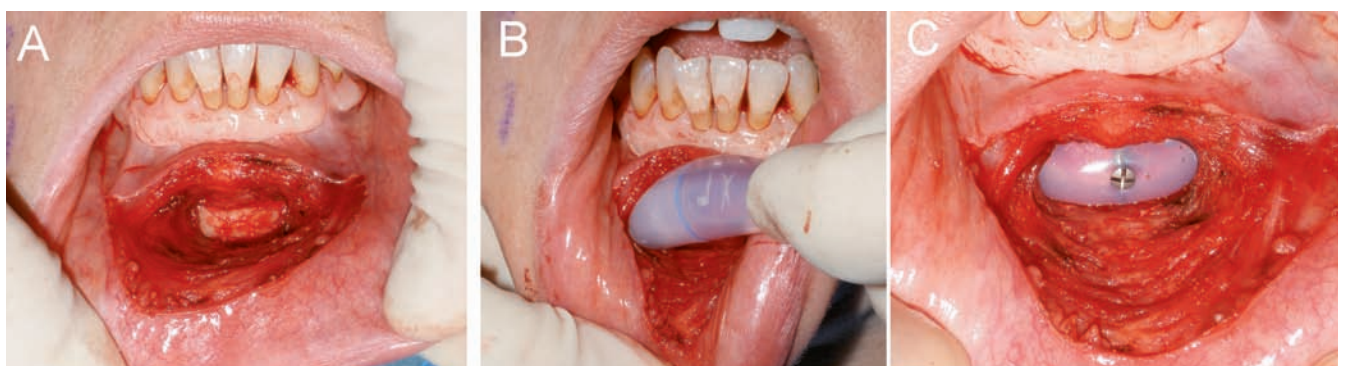


Figure 7. Figure 7A shows the intraoral dissection for mandibular implant placement. Figure 7B shows the implant being inserted in the pocket on one side and figure 7C shows the implant in place with a single micro screw stabilizing the implant.

to accommodate the implant. The smaller the pocket, the less the implant moves. The pocket is likewise irrigated with antibiotic solution and the implant is tucked in one side, across the midline and into the other side. It is important to line up the midline of the implant with the patient's mandibular midline (with any approach). As stated earlier, I secure the implant with a single rigid fixation screw in the midline.

Of extreme importance when using

the intraoral approach is reconnecting the severed mentalis muscle stumps. The red muscle bellies are easily identified and secured with a 4-0 Vicryl suture on each side. Failure to do this can lead to lip incompetence. The other deep layers and the mucosa are simply closed with 4-0 gut suture.

Post-operative care for either approach includes antibiotics, analgesics, and optional tapering steroids. Some practitioners use a compression bandage for several

days. Patients are asked to keep oral function to a minimum for several days. They are also informed that they will experience swelling that will resolve over the next 7-10 days. It is important to let patients know that the immediate post-operative result is not the final result and will initially appear over corrected. They should also be informed that their oral function and speech may be slightly altered in the first week. Most patients will experience some component

of post-operative paresthesia from routine placement. Unless the mental nerve has been damaged, permanent numbness is not a concern.

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