Section VI

Fat-Dissolving Injections

VI

69
Submental Fat Reduction

Difficulty: ●●
Patient Satisfaction: ●●
Risk: ●●

Indications

A new class of injectables is now available to treat moderate submental fullness due to an excess of pre-platysmal fat. Deoxycholic acid (Kybella) is a bile acid that acts to cause lysis of fat cells, as is its role in the digestive tract.

Anatomic Considerations

Deoxycholic acid is indicated for the treatment of pre-platysmal fat excess; however, it is not always easy for the injector to assess that the fat prominence is pre- or post-platysmal. The ideal patients for Kybella are younger, with more elasticity to their skin, and with a bulge of fat in the submental area that can be "pinched" between the thumb and index finger. Patients with massive amounts of submental fat are not good candidates. In addition, patients who have strong platysmal bands and poor cervicomental angles may be less-than-ideal candidates. Distinction should be made between good candidates and those others who would require a surgical necklift or facelift for optimal results.

On-Label Injection Technique

This is a somewhat painful injection, and a local anesthetic can be infiltrated prior to injection, although we have found that this causes more bruising; we now use only topical anesthetic cream, with ice immediately afterward. We also provide ibuprofen 800 mg orally for the patient about 30 to 60 minutes prior to the injection.

The boundaries of injection are drawn on the patient's submental region: the inferior mandibular margin and the submental crease, the hyoid, and the sternocleidomastoid muscles. A grid "tattoo" (provided in the kit) can be placed onto the neck using a moist compress, but after a few uses of this grid technique, it is usually unnecessary. Injections are placed 1 cm apart, deep into the subcutaneous fat, using a 30-gauge needle with 0.2-mL aliquots placed centrally and 0.1-mL on the periphery (to diminish risk of injury to the marginal mandibular nerve).

Kybella is supplied as 1-mL vials, and usually one or two vials are required, by assessing how many injection sites are needed to treat the marked area. Injections are performed monthly, and three to six sessions are necessary.

Off-Label Injection Technique

One suggestion to reduce pain is to add lidocaine to the Kybella prior to injection (1 part lidocaine to 2 parts Kybella). This decreases the need for pre-injection or topical numbing. While adding lidocaine increases the overall volume injected, it significantly reduces the pain after the procedure.

To achieve more optimal outcomes, it can sometimes be necessary to cautiously inject more laterally under the border of the mandible as far as the posterior mandibular angle, and to treat the jowl very superficially so as not to penetrate the platysma muscle. Staying more superficial and pinching up the fat upon injection will decrease the risk of the product spreading sub-platysmally to the marginal mandibular nerve, which can result in temporary demyelination and nerve paresis. These techniques require a confidence with anatomy and proper injection depths, and should only be performed by advanced injectors. Such techniques have resulted in superior results when used appropriately. Some patients with post-platysmal fat can also be treated with a longer needle in the midline, and the deeper fat is targeted with 0.2 mL boluses. Again, this technique requires knowledge of the local anatomy of the platysma, the muscles of the floor of mouth, as well as the location of the submandibular glands laterally. When more aggressive results are desired, it is not uncommon to use three to four vials of Kybella per session.

Precautions

Care must be taken during this injection to prevent injury to the marginal mandibular nerve. Injury to the nerve is usually transient but can sometimes take up to 6 months to resolve.

Post-Injection Instructions

Mild burning is noted for about 1 hour post-injection, and ice is used to lessen the discomfort. Significant edema is typical and can begin during the injection process. This edema lasts approximately 3 days, although many patients can expect to see some edema for at least 7 to 10 days, a possible problem if they have an important social activity in that time. Bruising is also typical and resolves in a few days. Numbness and/or localized firmness of the injected site is also typical and can last until the next injection.

Risks

Patient selection and patient education are paramount for this procedure. Patients must have realistic expectations and should be advised that not everybody has significant fat reduction after treatment. This may be due to the presence of sub-platysmal fat. Patients who are better candidates for surgery may want to consider facelift, necklift, or submental liposuction.

Care must be taken to avoid injury to the marginal mandibular nerve. Staying medial and using small injections along the periphery of the treatment area will lessen the risk of injury.

Pearls of Injection

- Keep injections medial and pre-platysmal to avoid injury to the marginal mandibular nerve.
- Counsel patients that they will experience significant edema and numbness post treatment, but these will be transient.
- Clinical results are not predictable, and up to six treatments may be required.
- Fat reduction occasionally unmasks platysmal banding.

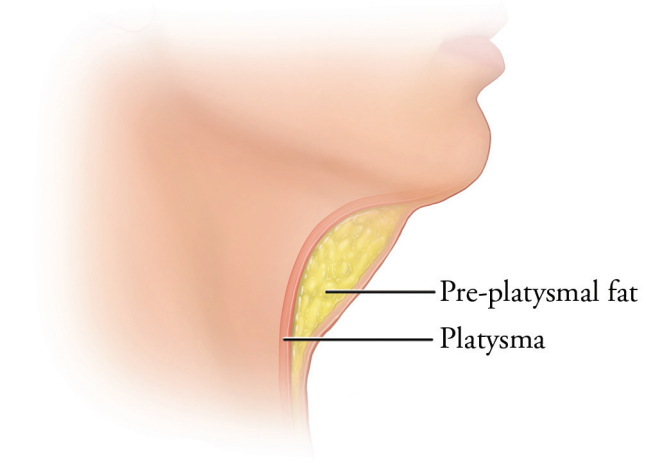

Fig. 69.1 On-label injection grid for treatment of submental fat. Central injections receive 0.2 mL while peripheral injections receive 0.1 mL.

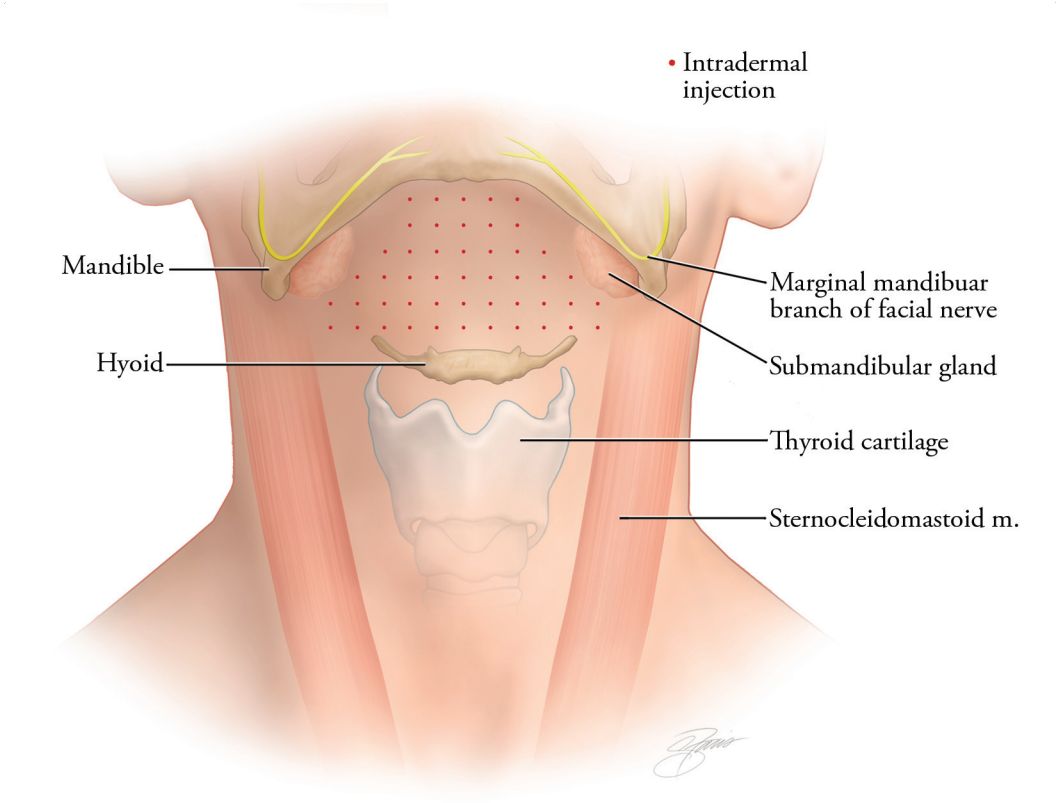

Fig. 69.2 Off-label injection technique to treat submental fat.

Additional Reading

[1] Dayan SH, Humphrey S, Jones DH, et al. Overview of ATX-101 (deoxycholic acid injection): a nonsurgical approach for reduction of submental fat. Dermatol Surg. 2016; 42 Suppl 1: S263–S270

[2] Shridharani SM. Early experience in 100 consecutive patients with injection adipocytolysis for neck contouring with ATX-101 (deoxycholic acid). Dermatol Surg. 2017; 43 (7):950–958