Glabella Treatment with Neurotoxin

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I treat the glabella after the forehead, as I do not want the pressure from the ice pack to push the botulinum toxin (BTX) over the orbital rim and into the levator complex. The corrugator is the principal muscle to paralyze, but the procerus should almost always be treated in tandem. Even if the corrugator appears to be the only active muscle, treatment of the corrugator alone will often cause recruitment of the procerus, leading to undesirable observation of procerus movement. Routinely, I treat the procerus with 2.5 units and each corrugator with 6.5 units.[1] With more pronounced activity, I will increase this dosage. Although this initial dosage may seem low, proper injection into the correct plane can provide remarkable and enduring aesthetic benefit. If the procerus demonstrates significant activity, I may use two injections of 2.5 units down the length of the procerus as needed. When treating the glabella and at times when combining treatment with the orbicularis, other neighboring muscles may be recruited after paralysis treatment (i.e., when certain muscles are blocked, the unblocked muscles begin to manifest movement and wrinkling to compensate for the lack of movement elsewhere). This phenomenon is observed in the so-called bunny lines that extend down the sides of the nasal dorsum and are related to nasalis activity. The physician can inject these lines with 1–2 units of BTX per side as needed.

Treatment of the glabella should progress as follows. A small ice pack is placed over the midline radix of the nose for about 20 s to anesthetize the procerus. The midline skin is then pinched in the nondominant hand to create neural distraction, and the botulinum toxin is injected into the procerus with the prescribed 2.5 units. The left corrugator is then treated. With the nondominant hand, the index finger is placed into the supraorbital notch, and the thumb circumscribes the superior limit of the corrugator. (The references to the fingers used refer to a right-handed injector.) The belly of the corrugator is then pinched firmly with the nondominant hand while

[1] Units described are for Botox-brand (Allergan Inc., Irvine, CA) botulinum toxin that is diluted with 4 cc of preserved saline. Of note, preservative-free saline is painful for the patient and unnecessary.

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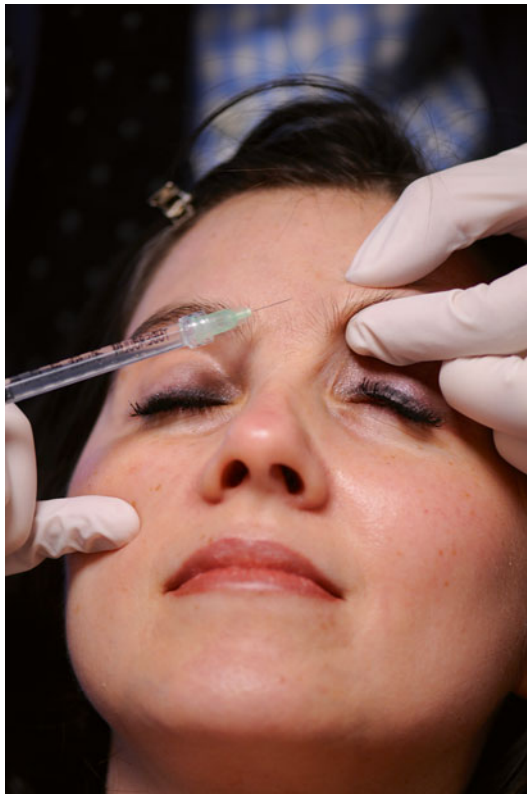

Fig. 125.1 The left corrugator muscle is shown being treated. With the nondominant hand, the index finger is placed into the supraorbital notch, and the thumb circumscribes the superior limit of the corrugator. (The references to the fingers used refer to a right-handed injector.) The belly of the corrugator is then pinched firmly with the nondominant hand while at the same time gently vibrating the tissues and rubbing the supraorbital notch with the index finger. Typically, a total of 6.5 units of botulinum toxin are used for each corrugator

at the same time gently vibrating the tissues and rubbing the supraorbital notch with the index finger (Fig. 125.1). This maneuver accomplishes three important objectives. First, the acupressure movements virtually eliminate all discomfort. Second, the skin is tented upward to allow passage of the needle deeply just above the bone where the corrugator resides. Third, the index finger protects the orbital rim from spreading of the toxin over the rim and onto the levator. The dominant hand injects the BTX in a superolateral direction in a prescribed deep plane. Injecting the BTX upward rather than downward protects any spreading of the toxin over the orbital rim and onto the levator complex. The same technique is applied to the other side. Before injection, the physician should trace out the extent of the corrugator, which may be more readily observed during animation and also in repose by looking at the contour of the muscle over the bone. Additional dosage and injections may be needed more laterally to capture the full extent of the muscle. There is really no need to inject the midline at the level of the corrugator since there is no muscle in this area to address. If any bleeding is noted in this area, it is best to use almost no pressure with the gauze to avoid the BTX being pushed over the orbital rim. It is also wise to flash the BTX syringe back to ensure that no intra-arterial injection has been accidentally committed.