

Facial Rejuvenation through Toxins and Fillers: Comparisons, Anatomy, and Nonsurgical Correction

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Botulinum neurotoxin treatment is the most common aesthetic procedure in the United States, with a number of serotypes and formulations available worldwide. The first article, by Klein et al.,¹ evaluated similarities and differences among the available toxins by reviewing the existing literature. The study concludes that different formulations of botulinum neurotoxin type A are not identical and are unlikely to provide equivalence in both safety and efficacy at any single dose-conversion ratio. Thus, injection patterns, injection techniques, dilutions diffusion, and injection volumes are not applicable across brands.

The second article, by Hirmand,² addresses a specific aesthetic challenge: the nonsurgical correction of the tear trough deformity. Hirmand begins by conducting a careful anatomic study of

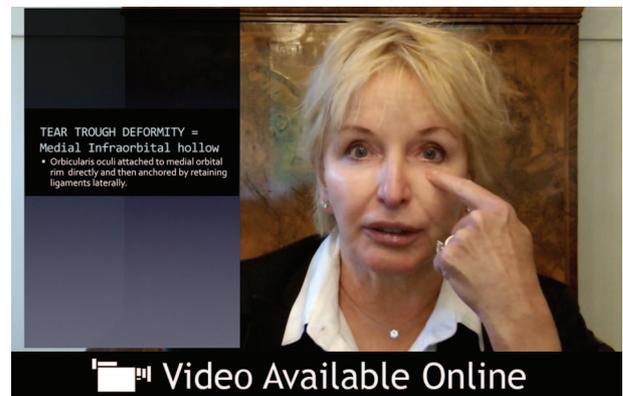
the “tear trough” (the medial one-third of the periorbital hollow), which often deepens with age. He then outlines good patient selection protocols and walks the reader through the optimal technique, from preparation and anesthesia to post-procedural care. Extensive figures clearly document his technique and results. A final section on complication avoidance and management concludes this excellent article, which shows that nonsurgical correction of the tear trough deformity with hyaluronic acid is effective and safe and is associated with high patient satisfaction.

REFERENCES

1. Klein AW, Carruthers A, Fagien S, Lowe NJ. Comparisons among botulinum toxins: An evidence-based review. *Plast Reconstr Surg.* 2008;121:413e–422e.
2. Hirmand H. Anatomy and nonsurgical correction of the tear trough deformity. *Plast Reconstr Surg.* 2010;125:699–708.



Video 1. See video in which Dr. Carruthers introduces the toxins and fillers article by Klein et al., featured in this special collection of *Plastic and Reconstructive Surgery* articles, <http://links.lww.com/PRS/A592>.



Video 2. See video in which Dr. Carruthers introduces the toxins and fillers article by Hirmand, featured in this special collection of *Plastic and Reconstructive Surgery* articles, <http://links.lww.com/PRS/A593>.

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