



# Eyelid Make-Up to Manage Transient Blepharoptosis After Botulinum Toxin Injection

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Transient blepharoptosis is a feared complication after botulinum toxin-A (BTX-A) cosmetic injections into the upper third of the face. Alpha-adrenergic agonist eyedrops are usually employed to address this adverse effect.<sup>1-3</sup> However, response may vary among patients and their use may be associated with ocular adverse effects.<sup>2,4</sup> The use of eyelid make-up might be an alternative approach to manage temporary upper eyelid ptosis. The authors had previous experience using a similar approach to conservatively manage severe myopathic blepharoptosis cases when surgical correction was contraindicated.<sup>5</sup>

A retrospective case series was conducted and the authors have complied with the principles of the Declaration of Helsinki. Cases were collected from January 2012 to December 2016.

After performing a skin testing at the retroauricular region 24 hours before, in order to rule out allergies to the product, six patients, who had received cosmetic BTX-A injections elsewhere, were treated using a hypoallergenic eyelid make-up (Double eyelid glue, Elizabeth, Japan) as an alternative to manage transient blepharoptosis. This product is water soluble and can be easily removed. The product was applied daily by the patient at the eyelid crease with a swab and allowed to dry for one minute. Then, a plastic Y-shaped stick that comes with the product was placed within the eyelid crease and the upper lid was pushed upward. Thus, a deeper eyelid crease was induced, temporarily elevating the upper eyelid (Figure 1 and Video, which is available online as Supplementary Material at [www.aestheticsurgeryjournal.com](http://www.aestheticsurgeryjournal.com)). Patients were asked to remove the product every night.

All patients were female and the mean age was 55.5 years (range, 37-69 years). In 4 of 6 cases, abobotulinum toxin had been applied in the upper third of the face for cosmetic purposes (in 2 cases, the toxin used was unknown). Mean marginal reflex distance (MRD-1) was +1 (range, 0 to +2) before and +2.83 (range, +2 to +4) after the eyelid glue application. All patients had normal levator function and Bell phenomenon. Mean duration of the blepharoptosis was 5.67 weeks (range, 4-9 weeks). All patients reported satisfaction with improvement of the palpebral fissure. Patient satisfaction was assessed in an office interview immediately after applying the eyelid make-up. No allergic reaction or other adverse effects were observed with the use of the product. Patients were followed up for 3 months and after that period, all patients had spontaneous improvement of the blepharoptosis.

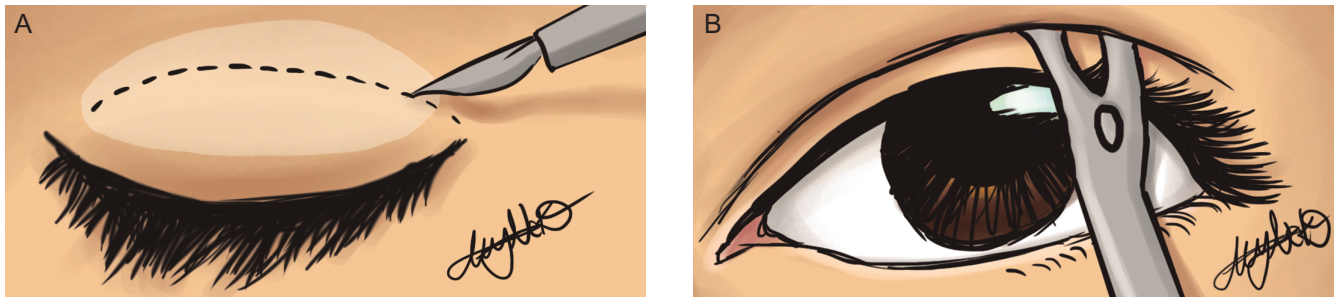
Upper lid ptosis after BTX-A applications may occur due to inadvertent diffusion of the drug into the levator palpebrae superioris muscle after glabellar, lateral periorbital, or lateral brow ptosis treatment. Eyelid ptosis may also be noted if a patient who presents preexisting and undiagnosed blepharoptosis compensated by the frontalis muscle elevation receives injudicious treatment of the

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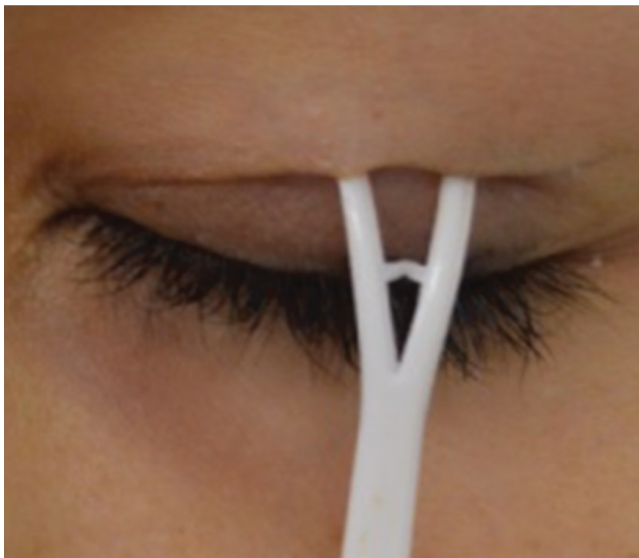
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**Figure 1.** (A) The product is applied daily at the eyelid crease with a swab and allowed to dry for one minute. (B) The upper lid is pushed upward with the plastic Y-shaped stick and a deeper eyelid crease is induced, temporarily elevating the upper eyelid.



**Video 1.** Watch now at <https://academic.oup.com/asj/article-lookup/doi/10.1093/asj/sjx165>

forehead lines.<sup>1,2</sup> Thus, careful evaluation before treatment is mandatory.

Recommendations to minimize migration of the drug into the levator muscle include: subcutaneous injections using concentrated small volumes; injecting at least 1 cm above the orbital rim when treating the glabella; use of onabotulinum toxin rather than abobotulinum toxin, due to the reported higher risk of blepharoptosis after the latter, probably due to its lower molecular weight. Furthermore, caution is needed when treating older patients whose orbital septum may be thinned.<sup>1,2</sup> If even following all these recommendations, blepharoptosis occurs, use of the eyelid make-up is a temporary treatment option.

This type of eyelid make-up is very popular among East Asian women with a single eyelid who opt for a temporary approach to induce an eyelid crease. This type of product can be found in stores that feature Asian make-up and cosmetic products, and online retailers, such as Amazon and Ebay. In the United States, prices vary between \$5 and \$15 USD, according to the brand. Regarding the management

of transient blepharoptosis, this technique can be used in Asians and non-Asians (Figure 2).

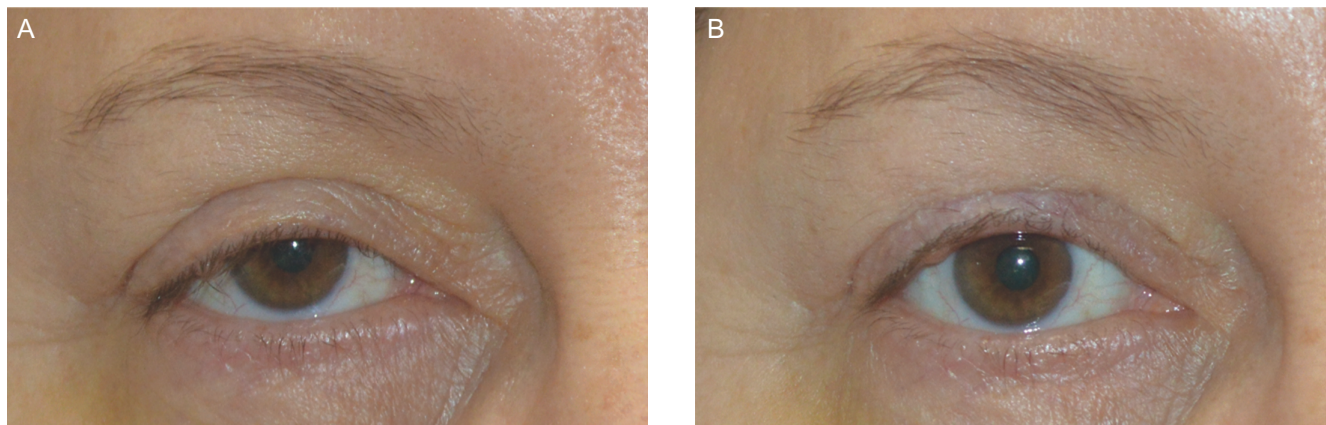
The authors had previously described the use of octyl-cyanoacrylate (liquid Band-Aid) as an alternative to manage severe cases of myopathic blepharoptosis.<sup>5</sup> Currently, liquid Band-Aid has been discontinued and the authors started using the eyelid make-up to temporarily treat blepharoptosis after BTX-A applications.

The eyelid make-up could elevate the upper eyelid on average 2 mm. Since most cases of blepharoptosis were mild to moderate, all patients reported a satisfactory improvement.

In the first attempt, the technique is not as easy as simply instilling eyedrops. However, after watching online tutorial videos made available by the companies that produce this type of make-up, and with some practice, the technique becomes easier. The greatest advantage is that the eyelid make-up is associated with much less adverse effects and ocular discomfort than the use of eye drops, such as apraclonidine. The use of alpha-adrenergic agonist eyedrops may be associated with side effects such as: ocular hyperemia, pruritus, foreign body sensation, tearing, discomfort, lid edema, dry mouth, transient loss of visual acuity, and allergic conjunctivitis.<sup>3,4</sup> Furthermore, the use of alpha-adrenergic eye is not recommended in contact lens users.

The use of the eyelid make-up seems to be safe if used temporarily and removed every night. The risk associated to its use is similar to the use of other types of make-up (ie, local skin irritation). No adverse effects have been observed in the authors' experience. To avoid local irritation, a skin test prior to its use is recommended. If irritation occurs, it will be limited to the skin, and the product can be easily removed with water.

In conclusion, the eyelid make-up is a simple, effective, inexpensive, and safe alternative to minimize blepharoptosis that may occur after BTX-A cosmetic treatment. It could also be used to manage transient blepharoptosis after BTX-A application into the upper eyelid to treat facial dystonias. Further studies are needed in a larger cohort of patients.



**Figure 2.** (A) This 58-year-old woman presented with right upper eyelid ptosis, noted one week after abobotulinum toxin-A injection. (B) Her right upper eyelid ptosis was temporarily treated with the eyelid make-up and an improvement of 2 mm in her MRD-1 could be observed immediately after application of the product.

### Supplementary Material

This article contains supplementary material located online at [www.aestheticsurgeryjournal.com](http://www.aestheticsurgeryjournal.com).

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