Recurrent Swelling and Edema after Botulinum Toxin Type A Injection in the Upper Face; A Case Report

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Abstract

Introduction: Botulinum toxin (BTX) type A is now the most often used medicine with an excellent result for upper facial rejuvenation.

Case Presentation: This article represents one of the rare adverse effects of the Botulinum toxin type A for cosmetic use in a 50 years-old woman with moderate to severe peri-orbital rhytides. She received four injection of botulinum with six to twelve more interval and 1-day after last injection, she developed mid frontal recurrent episode edema, which spontaneously remitted.

Conclusions: Adverse effects of the Botulinum toxin type A for cosmetic use, should be considered before administration.

INTRODUCTION

Botulinum toxin (BTX) type A is now the most often used medicine with an excellent result for upper facial rejuvenation. The use of this toxin for cosmetic purposes was first released in 1990 by Carruthers [1, 2]. This potent neurotoxin has been shown to be useful for the treatment of frown lines, disorder of muscles of facial expression and hyperhidrosis [3]. Cosmetic use of BTX has skyrocketed in recent years and has surpassed from other cosmetic procedures, especially since the approval of BTX-A for treatment of glabella’s lines. In addition, this method has very high effectiveness and efficiency but sometimes it can be associated with mild side effects such as asymmetries, bruising, mild headaches and nausea after application, brow ptosis, ptosis, transient pain at the injection site, drooping of the lower eyelid, accentuation of the fat pad under the lower eyelids, and partial incompetence of the orbicularis oris muscle and or severe complications such as diplopia, paralysis of the rectus lateralis oculi upper eyelid ptosis, lagophthalmos, severe incompetence of the orbicularis oris muscle, dysphagia, change the pitch of the voice, dry eye syndrome, ophthalmoplegy, and severe headache [4-6].

CASE PRESENTATION

A 50 years-old woman presented with moderate to severe per orbital rhytides. We used to disport containing 120 mg toxin. For a glabrous forehead region, 15 U toxin for procerus muscle, 30 U in temporal corrugator muscle and 4 U in frontals muscle in four points. She had the history of toxin injection four years ago during 6 to 12 months. After 10 days of the lost dose of Botulinum injection, she noticed erythema, edema and tenderness between eyebrows with around 5 cm aggravated by prolonged moving neck down and head activities. This process recorded by resting with-out treatment, but again recurrence of swelling was seen at the same region after one week, Ultrasonography was carried to evaluate the caves of recurrence edema, which spontaneously remitted.

DISCUSSION

Botulinum toxin is used in cosmetic dermatology primarily for the treatment of dynamic expression lines in the upper third of the face (the glabella brow frown, horizontal frontals forehead lines, peri-ocular rhytides or crow’s feet) and for the treatment of axillary and palmar hyperhidrosis [7]. There are seven different serotypes of a Botulinum neurotoxin. All the serotype inhibits the release of acetylcholine from the presynaptic motor neuron, resulting in the mod enervation and paralysis of the treated muscle. Botulinum toxin type A (Botox, cosmetic, disport) is the most commonly used serotype which
has a significant result in improved clinical outcomes [7]. The most problematic complication to consider is ptosis from overzealous treatment of the frontalis muscle, transient lid edema from periocular injections, headaches after injections anywhere in the upper third of the face [7, 8]. Also Botulinum toxin type A can produce weakness of a target muscle and non-injected neighboring muscle [9]. Careful attention to drug use, delusion, handling, storage, and site of injection are required for optimal treatment outcome. Other common but mixed complications such as bruising swelling ecchymosis pain at the injection site may be seen. To reduce transient complication such as headache, we usually suggest the patient to sit down for some hours after injections if possible are not to bend head or do physical activities. In review of literature [9, 10] we did not find any similar complication. Since occurrence of this complication to the patient was due to synchronizations of Botulinum toxin injection with moving her head and severe physical activating, we support that a suitable position of neck and head for long time. It caused lymphatic circulation disorders in the upper region of the eyebrows (the place with the most injection toxin).

ACKNOWLEDGEMENTS
There is no acknowledgement.

CONFLICTS OF INTEREST
There is no conflict of interest for the present study.

REFERENCES