Photo Essay

Wound Modulation with Botulinum Toxin

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PRESENTATION

Prevention and treatment of abnormal scarring present a challenge to the medical fraternity. Herein, we report the beneficial effect of botulinum toxin A (BTA) for wound modulation in a case with post-traumatic lower lid cicatricial ectropion.

A 20-year-old male patient presented with severe cicatricial ectropion in his left lower lid with a scar going down to his cheek and to the ala of the nose due to trauma 6 months before [Figure 1]. Pentagonal excision with direct suturing of the lid margin along with scar revision was performed. Botulinum toxin A (2.5 IU, Allergan India Private Limited, Bangalore, India) was injected into five different sites to allow healing of the wound in a relaxed manner; two injections were given on each side of the scar to offset horizontal traction and one was applied at the upper margin of the scar in the lower lid retractors to offset vertical traction. The lid margin was kept stretched for one week postoperatively by traction sutures. Three months after surgery, the lid margin was well apposed, and a good contour was achieved with no residual ectropion [Figure 2].

DISCUSSION

Postsurgical scars are of significant concern to both

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Figure 1. Preoperative photograph of the patient shows post-traumatic cicatricial ectropion in the left lower lid.

Figure 2. Photograph of the same patient three months scar revision and intraoperative botulinum toxin A (BTA) injection.

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patients and surgeons. Various treatment options such as lasers, botulinum toxin, cytokines and stem cells have shown effectiveness in minimizing the scar during revision.[1] It has been shown that intramuscular BTA in conjunction with scar revision on the face helps reduce the development of a widened scar.[2] BTA immobilizes local muscles, reduces skin tension caused by muscle pull and consequently decreases microtrauma and subsequent inflammation.[3] The patient presented herein demonstrated the beneficial effect of botulinum toxin injection after cutaneous surgery on the face. Botulinum toxin causes temporary muscle paralysis and allows them to remain in a relaxed state during the period of wound healing thereby preventing contracture. It is an excellent adjunct when the wound requires a relaxed state for healing.

Declaration of Patient Consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of Interest

There are no conflicts of interest.

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