

A heavy price for a hollow fix: Complications of under-eye fillers

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Abstract

This case report discusses a 35-year-old female patient who presented with complications following the administration of dermal fillers in the under-eye region. The patient received the fillers from an aesthetic clinic, leading to swelling, unevenness, and Tyndall effect. It was decided to dissolve the filler using hyaluronidase, and the patient's subsequent response to the treatment is documented.

Keyword: Misplaced dermal fillers; Hyaluronidase; Complications; Patient safety; Cosmetic dermatology.

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Introduction

The use of dermal fillers for beauty enhancement in under-eye region has gained immense popularity.¹ However, complications may occur with these procedures. Hyaluronic acid (HA) fillers, most commonly used fillers in under-eye area, can often be reversed using hyaluronidase, an enzyme that hydrolyzes hyaluronic acid.^{3,4} This case report throws light on the importance of various factors that might lead to complications and if encountered how can they be fixed.

Case report

A 35-year-old female came to us with complaints of swelling, discoloration and puffiness under eyes. The patient has been to an aesthetic clinic 4 weeks ago with the desire of correcting the under-eye hollows with fillers. After procedure she gradually developed

swelling of the treated area. Since she was already counseled for temporary edema and swelling, it was only after 3 weeks that she sought help.

On examination of the patient, there was bilateral asymmetrical periorbital swelling, bluish discoloration and palpable, tiny, irregular nodules in the subcutaneous tissue. However, no signs of necrosis, pain, redness or increase temperature on the affected skin were noted.

The swelling and discoloration greatly affected the patient's aesthetic appearance, leading to psychological distress, lack of confidence and embarrassment.

Considering the patient's condition, we immediately recommended the administration of hyaluronidase to dissolve the hyaluronic acid fillers. We discussed potential risks and benefits, the patient gave consent and we conducted the procedure as per the following protocol.

The patient was prepped and a topical anesthetic was applied to ensure comfort. Hyaluronidase in powdered form, was constituted it with normal saline dilution. We injected 150-300 units on each side into the

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Figure 1 Before Hyaluronidase injection.



Figure 2 After Hyaluronidase injection.

affected areas using a 30 gauge 6mm insulin syringe. The area was massaged to ensure even distribution and maximum effect.

Post-procedure instructions included cold compresses and avoidance of multivitamins, pain killers, antiplatelet and vigorous activities for the next 48 hours. Patient came for follow-up one week after

hyaluronidase injection. She reported a significant reduction in swelling and noticeable improvement in the under-eye area, with the asymmetry and discoloration almost became negligible and it was obvious too. Continued improvement was observed over the next 2 weeks, finally leading to normalized appearance.

Discussion

The topography of infraorbital areal demands skillful intervention because the arrangement and anatomical details of skin as well as structures underneath vary a lot in every individual. The extent of tear trough depth, length, under eye hollowness, wrinkles, under eye puffiness, strength of zygomatico-cutaneous ligament and amount of sub-orbicularis oculi fat (SOOF) all determine the final shape and appearance of this area.²

While augmenting under eye area multiple factors are of paramount importance to avoid complications. Various factors that might have been implicated in this particular patient may include correct indication, choice of appropriate filler, injection technique, amount of filler injected, expertise of injector and appropriate post procedure care. The favourable outcome, despite the delayed intervention, highlights the efficacy of hyaluronidase as a treatment option even after several weeks after filler placement.⁴ This case reflects that a thorough understanding of periorbital anatomy, careful selection of patient and meticulous injection techniques all are critical to minimize complications in tear trough augmentation. Despite the effectiveness of hyaluronidase in reversing filler-related complications, it is better and of utmost importance to prevent such side effects through caring for above mentioned factors.³

Conclusion

With awareness of beauty trends and the growing number of aesthetic periorbital rejuvenation procedures, awareness and prevention of ocular and facial complications is of paramount importance. Although majority complications are self-resolving,

such as ecchymosis at the injection site but persistent edema and swelling demand dissolving the filler with hyaluronidase injection. However, vascular complications such as irreversible blindness are detrimental to patient's vision and general quality of life. Continued practitioner training and adherence to best practices are critical to minimize adverse outcomes in aesthetic practice.

Declaration of patient consent The authors certify that they have obtained all appropriate patient consent.

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Conflict of interest Authors declared no conflict of interest.

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