Hyaluronic acid (HA) filler treatments are increasingly used in periocular rejuvenation, as they appear to offer a safe and versatile method of volume augmentation. Given their rising popularity among younger patients, it is increasingly likely that oculoplastic surgeons will encounter patients who have undergone prior periocular HA filler treatments, subsequently requiring blepharoplasties at a later time point. Their longer-term effect on eyelid anatomy remains uncertain however, and careful consideration needs to be given to the perioperative planning and management of these patients.

Previous publications have detailed management of lower lid HA fillers prior to lower blepharoplasty. The authors advocate careful history and examination to ascertain prior periocular HA filler treatments. The majority of these patients underwent dissolution of the HA with hyaluronidase pre-operatively. Anatomical alterations were noted intraoperatively with less delineation of surgical landmarks, leading the author to consider the procedure as a “revision” lower lid blepharoplasty. HA fillers are also utilised in upper lid volume augmentation and contouring, which must also be borne in mind prior to embarking on upper lid blepharoplasty. This may not be disclosed by the patient pre-operatively.

Hyaluronidase has widespread use in the management of HA filler related complications, and to dissolve excessive or problematic HA filler. However, there is no current standardised protocol for the timing and dosage of hyaluronidase prior to embarking on periocular surgery. Our favoured practice is to inject hyaluronidase at least one week pre-operatively, reconstituted with lignospan (to reduce pain and risk of bleed/bruise) and dexamethasone (to reduce swelling). Possible reported complications include allergy, which is rare. In addition to this, a bleed/bruise may complicate or delay the planned subsequent surgery.

On several occasions we have encountered evidence of fillers unexpectedly, whereby the patient had not disclosed the details preoperatively. We have observed a number of clues as to the presence of filler, the most striking of which is noted after injection of local anaesthesia. The anaesthetic solution fails to dissipate in the tissues and causes localised swelling of the lids, which may pose a challenge to the surgery (figure 1A). In these cases, our approach is to inject hyaluronidase at the beginning of the procedure. We find this is most effective if administered in the sub-orbicularis plane prior to dissection. Its short onset of action enables rapid dissolution of the filler, enabling the surgeon to safely proceed with planned surgery (figure 1B). We have also noted, intraoperatively, that the tissues tend to bleed more as a presumed inflammatory response to the previously placed HA. The HA filler is also often visible as a glistening material, usually in a sub-orbicularis, pre-septal location.

In summary, meticulous pre-operative assessment and targeted history and examination will help to identify patients with prior HA filler treatments in advance of undertaking upper or lower lid blepharoplasties. If this is
encountered unexpectedly intra-operatively, with prolonged swelling post injection of local anaesthesia, intraoperative hyaluronidase is a valuable tool to mitigate any negative impact on blepharoplasty surgery.

**Conflict of interest:** None to declare

**Funding/Support:** None to declare

**Contributorship Statement:** Miss Naughton conceptualised the report, performed the literature review, and drafted and revised the manuscript. Mr Joshi conceptualised the report, critically reviewed and revised the manuscript for important intellectual content.

**References**

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**Figure 1:**

1A. Persistent swelling of upper eyelid 30 minutes post administration of local anaesthesia for upper lid blepharoplasty. Hyaluronidase administered to the sub-orbicularis plane prior to superior orbicularis excision. 1B. Marked reduction in upper lid swelling following administration of hyaluronidase, facilitating completion of surgery.