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Chemosis is a frequent complication of cosmetic blepharoplasty. Most cases respond to topical treatment, but some remain difficult to improve.

Lymphatic drainage of the conjunctiva goes mainly to the preauricular lymph nodes. Procedures that involve extensive external canthal dissections are more prone to inducing chemosis. Other predisposing factors are previous surgeries, damage to orbicularis muscle (reduced blinking), and conjunctivochalasis (Fig. 60.1).

Once chemosis occurs, the prolapsing conjunctiva is exposed and dries, inducing more inflammation. This creates a vicious cycle that prevents chemosis from improving.

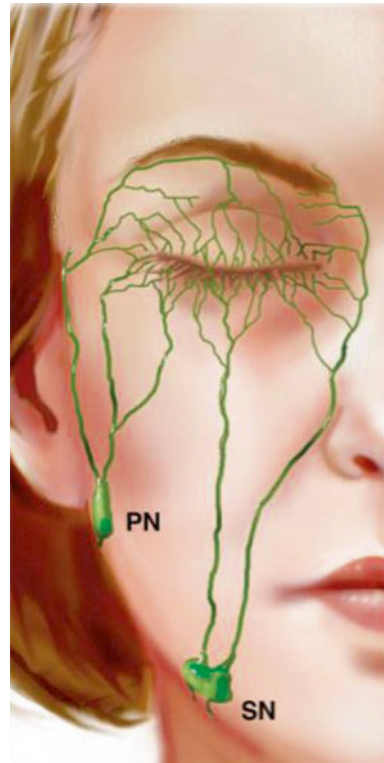
Therefore, initial treatment of chemosis consists of frequent instillation of artificial tears, to avoid dryness, and topical steroids to reduce inflammation. Cold compresses also help to reduce inflammation and are routinely indicated by most surgeons.

Most cases will respond favorably to these measures (Fig. 60.2).

If chemosis persists, the use of pressure patch at night and compression for 15 min every 2 h

during the day may be useful (Putterman 1995) (Fig. 60.3).

Liu reported the use a small piece of gauze soaked in petroleum jelly, inserted after pushing the conjunctiva back into the fornix, followed by a double pressure patch for 24–48 h (Liu 1999).



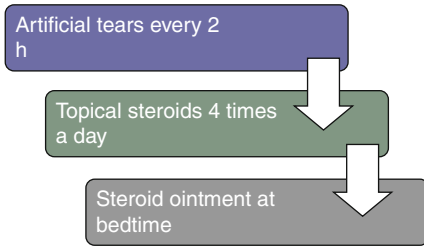
**Fig. 60.1** Lymphatic drainage of the periocular region

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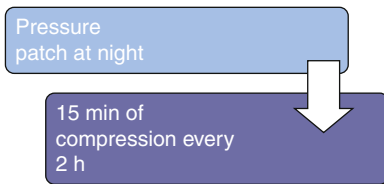
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**Fig. 60.2** Initial treatment of chemosis graph



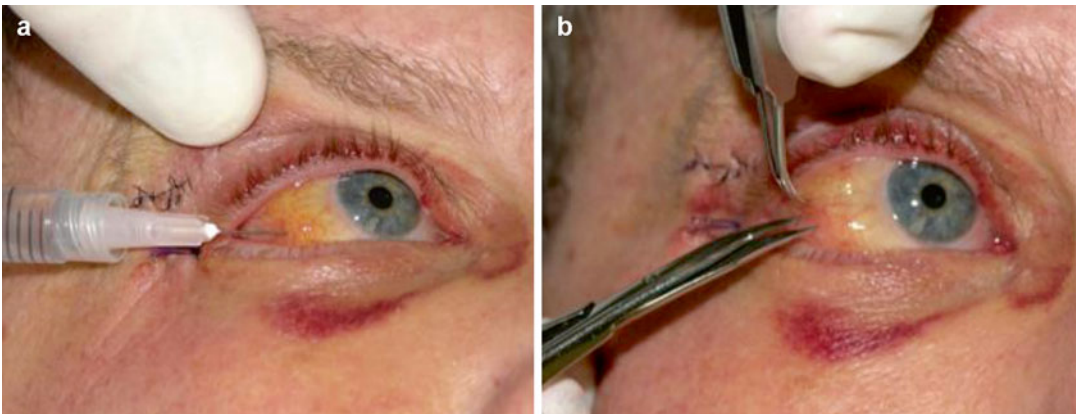
**Fig. 60.3** Pressure patch compression graph

Moesen and Mombaerts report success in the treatment of refractory cases of chemosis by sub-conjunctival injection of 2 % tetracycline (Moesen and Mombaerts 2008).

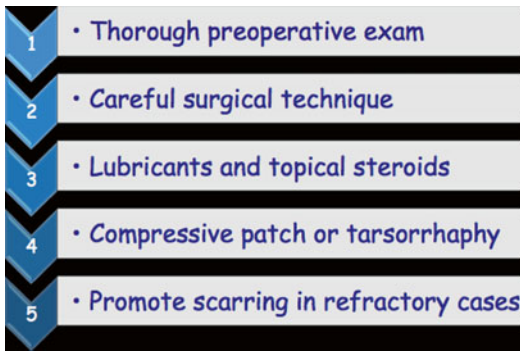
Cheng and Lu recommended perilimbal manipulation as an alternative treatment. After topical anesthesia, a 30 G needle is inserted at the limbus under the Tenon's and conjunctiva and directed towards the area of chemosis. This is followed by the use of a pressure patch (Cheng and Lu 2007).

Conjunctivoplasty has been reported by Weinfeld et al. (2008). This procedure can be done in the office and consists of making small snips in the conjunctiva affected by chemosis, in order to induce scarring between the conjunctiva and the sclera (Fig. 60.4).

In summary, the step-by-step prevention and treatment of chemosis involves: (Fig. 60.5).



**Fig. 60.4** (a) Infiltration of local anesthesia. (b) Two millimeter incisions through conjunctiva and Tenon



**Fig. 60.5** Prevention and treatment of chemosis

## References

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