

# Liposuction and Suspension of the Orbicularis Oculi for the Correction of Persistent Malar Bags: Description of Technique and Report of a Case

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## Abstract

**Background** The purpose of this study was to present an alternative surgical procedure for the correction of persistent malar bags and to review the literature.

**Methods** A 45-year-old female patient with persistent malar bags, secondary to previous blepharoplasty, was admitted. Liposuction of the edema and suspension of the orbicularis muscle to the temporal region was performed through a lateral canthal incision.

**Results** A successful malar bag removal was demonstrated, exhibiting stable results at the 6-month follow-up.

**Conclusion** Persistent malar bags resulting from previous blepharoplasty may be difficult to correct with conventional treatment. The combination of liposuction and suspension of the orbicularis oculi is proposed as an efficient alternative for the correction of persistent malar bags.

**Keywords** Malar bags · Orbicularis oculi suspension · Blepharoplasty · Liposuction

Cheek pads can often be seen after blepharoplasty. Postoperatively, the edema increases for a short time period, along with the malar rims. Usually it resolves on its own, but sometimes it remains. The cause is unknown but subcutaneous scar tissue seems to be critical: the cycle of

edema–scar–edema is repeated and results in a permanent defect. Malar bags may also be present in patients with systemic disease such as chronic renal disease, allergy, or hepatic cirrhosis. There is no satisfactory treatment except diuretics and oral steroids during the immediate period after blepharoplasty [1–4]. Alternatively, extended blepharoplasty can be performed. Direct excision can also be undertaken but the scar is conspicuous.

We present an alternative surgical approach for the correction of persistent malar bags secondary to previous blepharoplasty (Fig. 1). Liposuction of the bag was performed and suspension of the orbicularis to the temporal region by both a temporal and a lateral canthal incision.

## Surgical Procedure

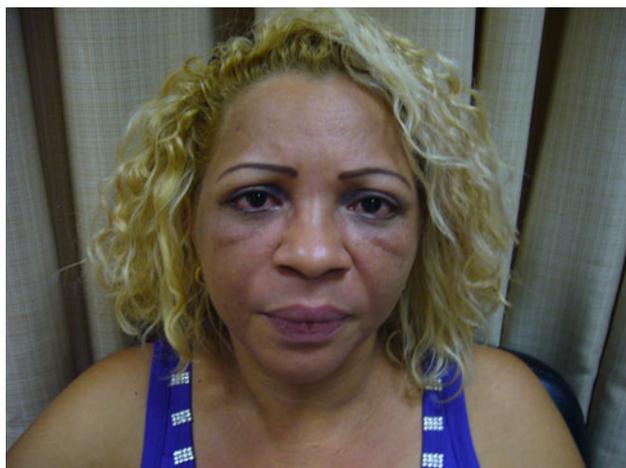
A 45-year-old female patient with persistent malar bags for 2 years, secondary to previous blepharoplasty, was admitted. Diuretics and/or oral steroids failed to reduce the edema. No systemic condition such as chronic renal disease, allergy, or hepatic cirrhosis was present.

Using a 18G needle, a small puncture incision was made in the lateral alar area, hidden within the alar crease. Tumescent fluid (10 cc) (1,000 cc R/L, 1 amp adrenaline, 50 cc xylocaine 1%) was injected in the malar bags and liposuction was immediately performed using a 0.3-cm blunt-tip cannula (Fig. 2).

Blunt dissection with scissors was carried down to the deep temporal fascia through a limited temporal incision (Fig. 3). The loose areolar tissue on the inferior aspect of the temporoparietal fascia was elevated off the deep temporal fascia to the level of the superior temporal crest. The dissection continued anteriorly around the lateral aspect of the supraorbital rim and inferiorly around the lateral aspect

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**Fig. 1** Preoperative photograph of the patient with persistent malar bags. Clinical appearance of iatrogenically induced malar bags as a result of a previous blepharoplasty. Two years conventional treatment with corticosteroids and diuretics was ineffective



**Fig. 2** Preoperative marking of the areas for liposuction at the lower eyelids and surgical removal of the malar bags

of the infraorbital rim and zygomaticomaxillary prominence. This is a “safe space” [5], because the temporal and both the buccal and the zygomatic branches of the facial nerve are more superficial.

Dissection through the lateral canthal incision continued laterally over the anterior aspect of the zygomatic bone to the dissected region from the temporal incision. Complete subperiosteal dissection of the maxillary and medial zygoma areas was performed with a periosteal dissector.

A PDS 2–0 suture, placed upward to the deep temporal fascia and through a Tobin suture passer (Anthony Products, Inc., Indianapolis, IN, USA), was directed to the lateral canthal incision (Fig. 4), creating a tunnel. A second bite was placed to the lateral fibers of the orbicularis oculi muscle to elevate the soft tissues and the suture was



**Fig. 3** Temporal and lateral canthal incisions for the suspension of the orbicularis oculi muscle to the deep temporal fascia (from [6]; reprinted with permission from Wolters Kluwer Health, license No. 2603091262823)

directed back through the passer to the deep temporal fascia. The temporal incision was closed by using a 3–0 Vicryl rapid suture and the lateral canthal incision was closed by a 6–0 intradermal nylon suture.

## Results

Successful malar bag removal was performed by means of liposuction and suspension of the orbicularis oculi. At the 6-month follow-up no edema was present, suggesting that the treatment was a success (Fig. 5). No complications were reported during the follow-up period.

## Discussion

Cheek pads, secondary to blepharoplasty, sometimes are difficult to release. There is no satisfactory treatment; diuretics or oral steroids may not be successful in the long term. Extended blepharoplasty or direct excision can also be performed but the scar is conspicuous. A surgical alternative requires detailed examination of the anatomy of the bags, the orbicularis muscle, and the excess of skin-herniated fat or the edema. Whether we are dealing with festoons, cheek pads, or premalar bags, it is essential to address the cause. Usually, it is not just a pocket of fat, muscle, or incorporated edema but also an enlargement of several elements that are more likely to complicate the treatment.



**Fig. 4** Surgical procedure. The suture placed on the deep temporal fascia suspended the lateral aspect of the orbicularis oculi muscle (from [6]; reprinted with permission from Wolters Kluwer Health, license No. 2603091262823)



**Fig. 5** Clinical appearance 6 months after the correction of persistent malar bags by means of liposuction and suspension of the orbicularis oculi

Rosenberg [4] proposed liposuction of the edema and the subdermal fat without any consideration of the orbicularis muscle. On the other hand, Furnas [7] raised a myocutaneous flap with excision of the cephalic part of orbicularis, which may dissolve the festoons but not the localized edema. The technique proposed by Hamra [8–11] combines a deep-plane facelift and excision of the lower part of the orbicularis. However, there is a high rate of facial nerve injury with this technique. A midface lift [12–18] elevates the muscle and the soft tissues, while a concentric malar lift proposed by Le Louarn [19] combines

blepharoplasty with a midface lift; however, neither procedure releases the edema.

We described a new technique that involves the liposuction of the edema and the suspension of the orbicularis oculi. Successful and stable results were observed over a 6-month follow-up period.

## Conclusion

Suspension of the orbicularis oculi combined with liposuction is a surgical alternative for the treatment of persistent malar bags. However, more studies are needed to confirm the stability of the result long term.

**Conflict of interest** None of the authors has any proprietary or financial interest in this study. This study has never been presented in a scientific meeting.

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