“Novel technique of dermofat loading of upper lid in facial nerve palsy”

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ABSTRACT

Aim:
Aim of this series is to deal with the problems in facial nerve palsy patients who underwent eye lid weight implants with multiple upper eye lid implant exposures.

Method:
In this series, we report two patients with grade IV plus House Brackman classification of facial nerve palsy, from a single unit with failed conventional upper eyelid weight implants. Both patients had dermofat tissue loaded to the upper eye lid. The dermofat auto-graft was harvested from the peri-umbilical abdominal area in both the patients. Images and details were taken with patient consent utilizing the local digital notes and image libraries.

Results:
Both patients had their eye lids settled well a few months after the procedure. Our two-case series showcases a unique technique that is an option to provide both a cosmetically pleasing and functional result in difficult to manage cases following facial nerve palsy.

Conclusion:
Dermofat autograft loading of the upper eyelid is a safe procedure for facial nerve palsy patients with fibrotic anterior lamella, especially in cases of weight extrusion or failure.

AIM

Eye lid weight implants have been traditionally used in conjunction with other treatments for facial nerve palsy to prevent keratopathy in longstanding cases. (1)
The aim of this series is to deal with the problems in facial nerve palsy patients who underwent eye lid weight implants with multiple upper eye lid implant exposures

METHODS AND MATERIALS

In this series, we report two patients with grade IV plus House Brackman classification of facial nerve palsy, from a single unit with failed conventional upper eyelid weight implants. Both patients had dermofat tissue loaded to the upper eye lid. The dermofat auto-graft was harvested from the peri-umbilical abdominal area in both the patients. Images and details were taken with patient consent utilizing the local digital notes and image libraries.

CASE PRESENTATION

Our first patient had longstanding right facial nerve palsy along with significant lagophthalmos following acoustic neuroma excision in 2006.
The patient underwent upper lid platinum weight implant in 2008. The implant rotated 180 ° on itself in Jan 2012 (Fig 1).
The patient had removal & exchange of platinum implant in May 2012 but sadly the replaced implant exposed in 2013 (Fig 2). The implant was eventually removed in 2014 and dermofat tissue loading was performed on the upper lid which settled well over the next year (Fig 3 & 4).

The second patient had a longstanding right facial nerve palsy as well and underwent a platinum weight implant to the affected upper lid but with similar failure due to implant exposure. He subsequently underwent the same dermofat loading procedure to the eye lid with good result like the first case.

Fig 3. Dermofat loaded eye lid- 1 week post op



RESULTS

Both the patients had their eye lids settled well a few months after the procedure with good ocular surface protection. Our two-case series showcases a unique technique that is an option to provide both a cosmetically and functionally accepted result in difficult to manage cases following facial nerve palsy

Fig 1. Rt. upper lid implant-180 degree rotation



Fig 2. Right Upper lid implant exposure



Fig 4. Rt upper lid dermofat loading- 1 yr post op



DISCUSSION & CONCLUSION

Facial nerve palsy with lagophthalmos and poor bell’s phenomenon can leave the eye vulnerable to exposure keratopathy. (2)
Different strategies are utilized to prevent keratopathy ranging from medical to more invasive management , e.g, copius lubrication of the eye, botox upper lid injection, frost sutures and tarrsorraphy etc (3)

In our series, initially an oversized graft with dermis side facing towards the anterior lamella was used. This compensates for the loss of necrotic skin of the anterior lamella. It takes 6 to 9 months for the upper lid load to reduce in size and shape to a more normal looking eye lid as shown in our case series.

Dermofat autograft loading of the upper eyelid is a safe procedure for long standing facial nerve palsy patients with fibrotic anterior lamella, especially in cases of weight extrusion or failure.

We recommend using this technique for facial nerve palsy patients not suitable for weight implants as an alternative or in cases of failure of weight implants

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