BLEPHAROPLASTY BY FLAPS

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Introduction

The primary consideration of the plastic surgeon in reconstructing the eyelid is the protection of the eye and maintenance of vision. The cosmetic consideration though very important has a secondary role. In disabilities where only the skin element of the eyelid is affected split skin graft or full thickness skin graft suffice the need of reconstruction of the eyelids. But where the tarsal plate is also damaged or in cases where borrowing tissue from the unaffected lid can not compensate for the lost portion of the affected lid, blepharoplasty by a flap from the adjacent area of the orbit has a definite role to play.

Material and Methods

Twenty six cases of flap blepharoplasty have been carried out for different disabilities. Table I shows the breakdown of the nature of disabilities. Table II shows the type of flap used for reconstruction of the eyelid

Table I

Nature of Disabilities	No. of Cases
Cicatricial Intrinsic Ectropions	14
Large defects of Eye lids from trauma	8
Large defects of eye lids from excision of tumour	4
Total	26

Table II

Type of flap	No.
Midline Vertical Forehead Flap	4
Oblique Forehead Flap	2
Supraorbital Transverse Flap	14
Infra Orbital Advancement Flap	10
Temporal Flap	4
Total	34

Six cases had bilateral involvement of eyelids One case in addition had involvement of both the upper eyelid and lower eyelid of both eyes. All these cases are ectropions from burn injuries.

Represetative Case Notes

1. N. K. D., aged 34 years sustained acid burn of face resulting in severe intrinsic ectropion of both the eyelids of both eyes. Supraorbital flaps for the upper eyelid and temporal flaps for the lower eyelid reconstruction were used. Results were excellent.

2. N. S. aged 37 years sustained severe thermal burns of face and neck. The reconstruction of the eyelids with split skin grafts could not entirely correct the ectropion of the lower eyelid of right eye. Blepharoplasty of right lower eyelid was carried out by advancement of infraorbital flap alongwith a Z plasty at the region of outer canthus with good results.

3. A. D, a boy of 10 years sustained thermal burns of face resulting in ectropion of right upper eyelid. Reconstruction was carried out by a supraorbital flap with good functional results.

4. U. N, a female, aged 25 years was severely mauled by a wild bear. She had a disfigured face with severe distortion of upper eyelid and contractures at the region of medial canthus. Combination of supraorbital and infraorbital flaps were used for reconstruction. Results were good.

5. B. S, aged 37 years sustained injury of the right lower eyelid from vehicle accident. Cicatricial ectropion developed. A combina-

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tion of advancement of infraorbital flap and a Z plasty at the region of outer canthus to avoid excessive tension of the flap was carried out to correct the ectropion.

6. D. S, aged 24 years sustained loss of one fourth of each of the upper and lower eyelids of right eye in the horizontal dimension including the entire eyelashes, from a sharp revolving wire. Reconstruction of both the eyelids was carried out by a temporal hairbearing flap, thus restoring not only the protective function of the lids but also providing eyelashes for a fair cosmetic effect (Fig. 2. 3 & 4 &).

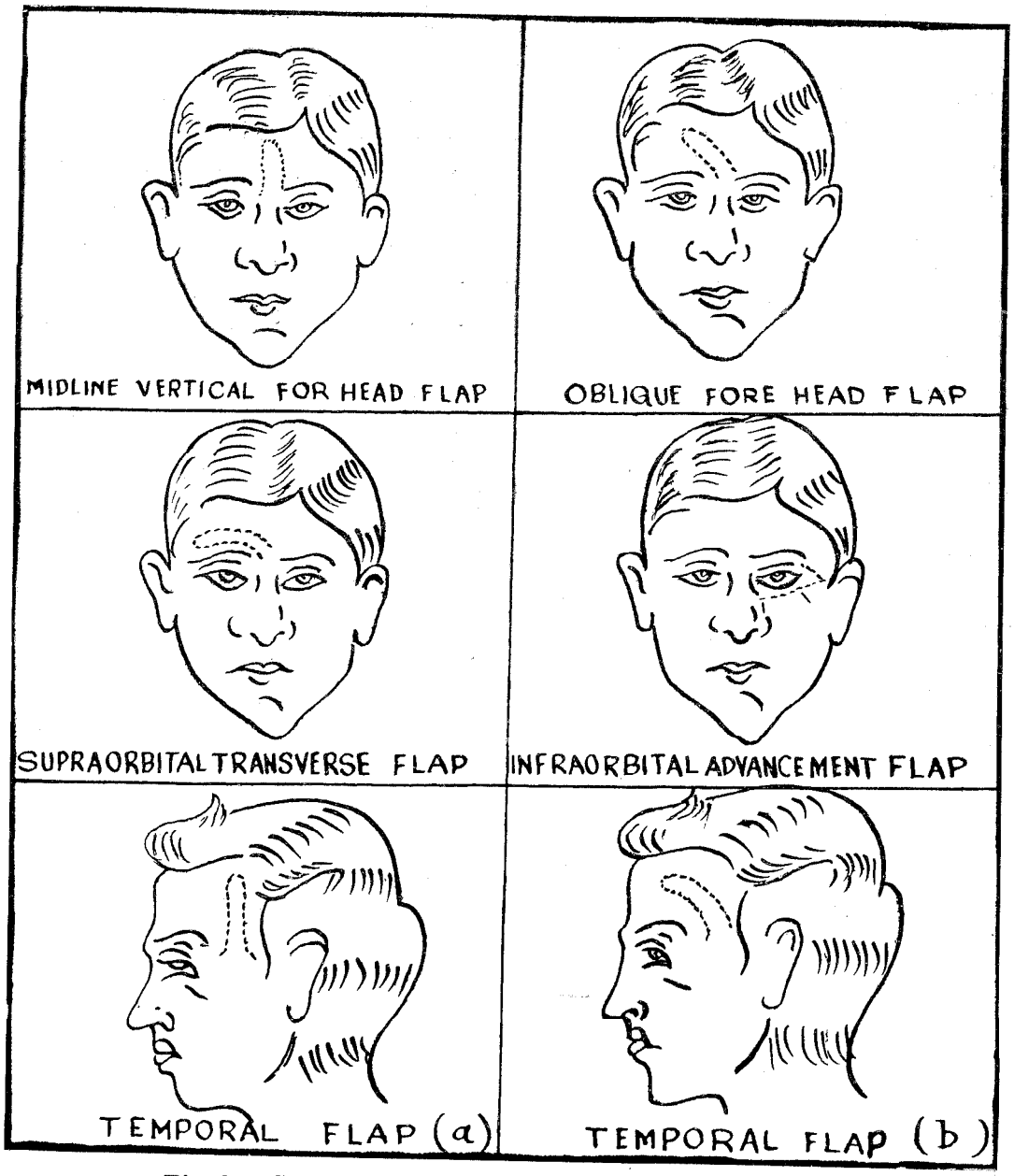

Fig. 1. Shows the diagramatic representation of flaps.

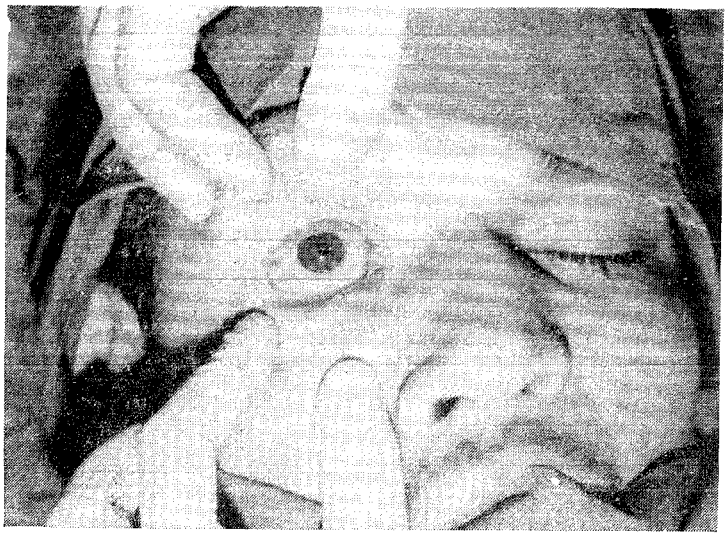

Fig. 2. Showing partial loss of both upper and lower eye lids in horizantal diamension.

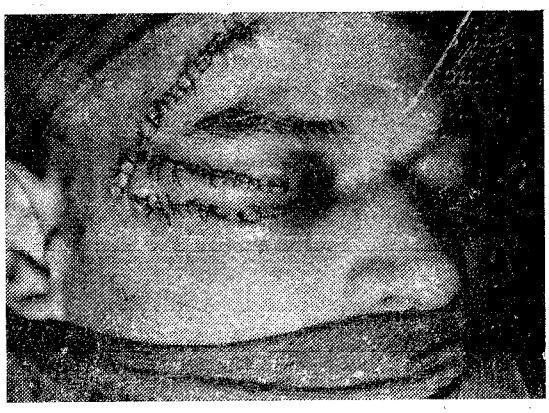

Fig. 3. Showing transfer of temporal flap.

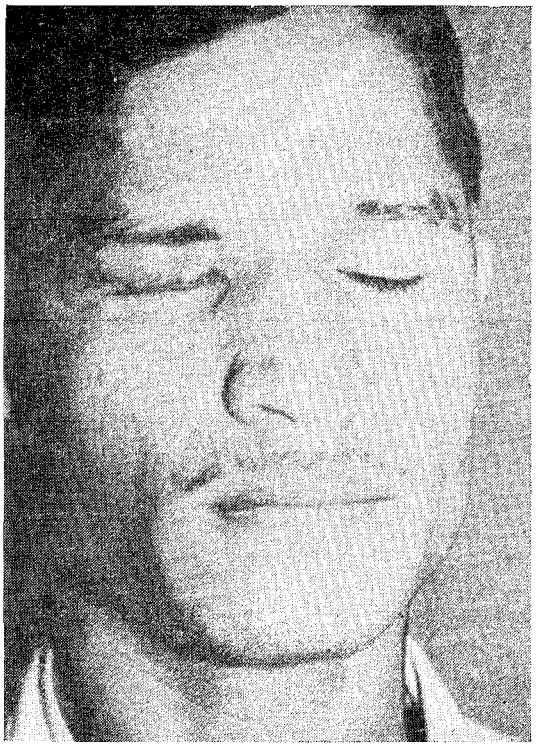

Fig. 4. Shows the reconstructed eye lids with eyes closed.

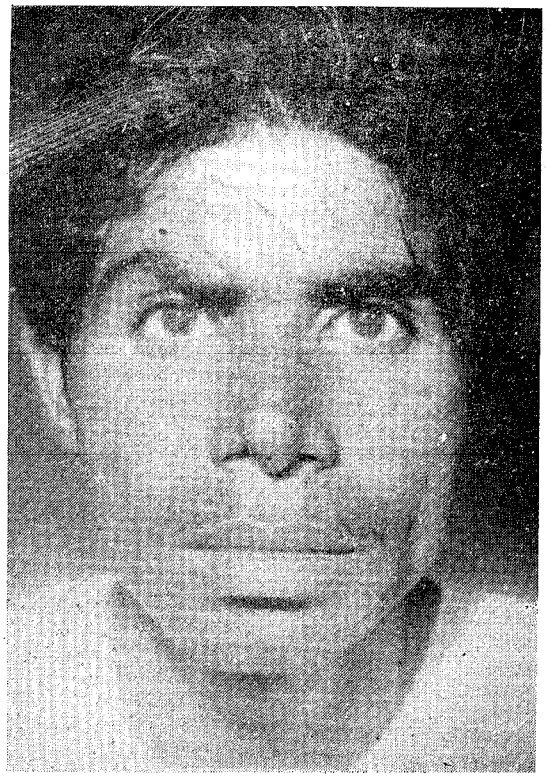

Fig. 5. Shows the reconstructed eye lids with eyes open.

7. B.S, aged 26 years had large traumatic coloboma of right upper eyelid with enucleation of the eyeball from a vehicle accident. Blepharoplasty by a supraorbital flap was carried out. The prosthetic eye thus could be retained. Cosmetic result has been rewarding.

Discussion

The pioneers in the field of flap blepharoplasty are Von Graefe and Fricke. Von Graefe in 1818 constructed a lower lid with a cheek flap. His method was improved upon by Fricke who introduced a procedure forboth upper and lower eyelid reconstruction using zygomatic and temporal flaps. Later these flaps as well as distant flaps were used Lateral advancement of an island flap was indtroduced by Kazanjian in 1949. This was probably one of the first island flaps with a subcutaneous pedicle used for eyelid reconstruc tion in our era. Smith has used transposition of temporal flap in large defects of lower eyelid in the lateral canthal region.

Flap blepharoplasty is a procedure of choice where simple skin graft can not restore the protective function of the eyelids, eg cicatricial intrinsic ectropion with damage of the tarsal plate.

In defect of the central section of the eyelid replacement of lid tissue by lid tissueis usually possible. If the borrowing technique from the opposing lid is utilised,only minimal structural, functional and cosmetic damage will be inflicted upon the donor lid. If more damage is predicted, use of advancement or transposition flaps from forehead, temporal region or cheek should be considered.

In patients where there has been substantial loss of both eyelids in horizontal dimension or in the region of lateral canthus and one eyelid can not serve as donor for the reconstruction of the other (e. g switch flap of Mustarde), flap blepharoplasty should be considered.

This is also a procedure of choice where there is a large defect in an eyelid of an anophthalmic socket and reconstruction is needed for retainment of the prosthesis.

Conclusion

Flap blepharoplasty has definite place in patients with severe ectropions and in those in whom borrowing technique from the other eyelid is either not desirable or not possible. The only drawback of this procedure is that the reconstructed eyelid is not pliable. In cases where the disfigurement has already occured from burn injuries, the restoration of the protective function outweighs the consmetic limitation of this procedure.

References

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