

SPLINT FOR SPLIT SKIN GRAFTED UPPER EYELID

Dr. Malti Gupta M.S., M.Ch. (Plastic), F.I.C.S.*

Use of a splint is generally advised over split skin grafted areas to maintain the graft in stretched position so as to minimise graft contraction, thereby diminishing the chances of recurrence of deformity.

No such splint has been either devised or advised for split skin grafts applied on the upper eyelid.

The need for such splintage for upper eyelid appeared essential to us in the case illustrated (fig. 1 to 3).

A 15 year old female patient presented with severe post-burn ectropion of right upper eyelid and of medial half of right lower eyelid. Burn scars were also present over the forehead and the root of the nose.

The upper eyelid ectropion was corrected using the standard technique as described by Mustarde and an extensive release was obtained.

The raw area was covered with medium thickness split skin graft. 'Tie-over' dressing was given and its constant mild pressure was supplemented by a crepe bandage.

At the first dressing, two weeks after operation, the graft take was 100 per cent. Cotton wool padding and crepe bandage were reapplied but the patient simply did not tolerate the dressing ; she either loosened it or opened it often.

Rapid contraction of the graft occurred within 48 hours at an alarming rate despite

excess graft. Consultations with occupational therapy workshop personnel brought out the design of the splint shown in fig. 2

The splint consists of an aluminium sheet eye piece and a leather head belt. The eye piece has a felt padded inner surface shaped to fit the contour of the grafted eyelid. The spring between the eye piece and the head belt permits slight adjustment of pressure on the lid. The leather belt has a horizontal and a vertical component. The latter helps maintain the splint in position by preventing slipping of the horizontal portion of the belt.

Relaxation of the graft was observed within one week of the use of this splint. The splint was used only for three months.

Figure 3 shows the result one year after the correction of the upper eyelid ectropion.

Discussion

Split skin graft applied to the upper eyelid is prone to rapid contraction ; Mustarde has therefore advocated extensive release to enable excessive graft to be put in. The excess graft compensates for the tendency to contraction. Despite excess graft many an eyelid require secondary or even tertiary procedures for recurrence of contracture.

The splint described here may abolish the need for such repetitive operations provided the basic criteria of extensive release and excessive graft are adhered to.

*Reader in Plastic and Reconstructive Surgery, S. M. S. Medical College and Hospital, Jaipur 30200, India



Fig. 1. Pre-operative

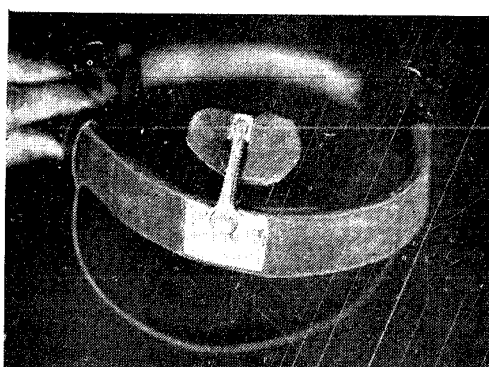


Fig. 2 a. The Splint—Front View

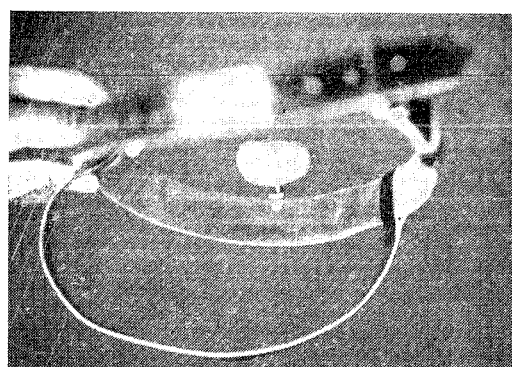


Fig. 2 b. Inner surface of eye piece



Fig. 2 c. On the patient



Fig. 3. One year after the operation on upper eyelid.

It is difficult to say how the graft would have behaved in this case had we not used the splint. But the rapid rate of contraction in the absence of pressure on the graft spurred us to quick action as the fear of recurrence loomed large in our thoughts.

This splint might also be useful in cases with involvement of orbicularis oculi muscle, where multiple skin grafting procedures are almost always necessary.

Summary

We advocate the use of splint for split skin grafted eyelid—A splint for this purpose has been described and its beneficial effect in such a case is illustrated.

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REFERENCES

- Mustarde John C. : Repair and Reconstruction in the Orbital Region, E. & S. Livingstone Ltd., Edinburgh & London, 1966 pp. 33.