A modified technique for correction of trachomatous cicatricial entropion*

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SUMMARY Cicatricial entropion resulting from trachoma occurs in various grades of severity. No one technique of surgical correction is suitable for all types. The technique has to be modified in accordance with the severity of the condition. A modified technique using skin graft is described, and excellent results (93.8%) in 380 lid corrections with minimal recurrences during a follow-up period of over 2 years are presented.

Entropion and trichiasis present in various grades of severity in areas where trachoma is endemic. No one method is suitable for surgical correction of these various grades of severity. This is why there are innumerable methods and modifications for entropion correction. A mild entropion may be corrected by a simple skin muscle excision, whereas a severely scarred lid calls for more radical methods with a combination of techniques. The choice of technique thus depends on the severity of entropion. Some of the available techniques are simple, others have more involved procedures, and some have certain drawbacks (Hadija, 1960) with consequent corneal changes. Some give higher success rates than others, depending on the aetiology and severity of entropion (Bercovici et al., 1977).

This paper presents a modified method for correcting extensive cicatricial entropion and trichiasis which is simple, has fewer drawbacks, and is followed by fewer recurrences.

Material and methods

380 eyes (360 bilateral, 20 unilateral) of 200 patients, predominantly female (170 females, 30 males) between the ages of 5 and 80 years (largest number between 15 and 56 years) were operated on for severe entropion/trichiasis resulting from trachomatous scarring. The operations were done at the Guinness Ophthalmic Unit of Ahmadu Bello Uni-

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Entropion correction

Fig. 1 The lid is split intermarginally and at each end continued upwards for 3-4 mm

Fig. 2 The skin graft is dissected, the first incision joining the vertical cuts

Fig. 3 The skin graft is sutured in the intermarginal space under a polyethylene tube, the unservered ends passing through the vertical cuts

Fig. 4 The corrected eye

lower margin of the graft, and they are tied with optimum tension above the upper skin incision (Fig. 3).

Particular care is taken to excise completely all cilia roots from the posterior flap; to include the very last lash at both ends within the upward cuts; to have the graft lie properly in upward cuts at both ends; to pass sutures through the lower border of skin graft; and to leave about 2 mm of free edge of the posterior flap.

A pad and bandage is applied. Daily dressing is done for 3 days, after which dressing is discarded. Sutures and tube are removed on 7th or 8th day.

Results

320 corrections out of 341, followed up (93.8%) were well maintained during the period of observation. There were no significant complications during or after surgery. There were no recurrences of entropion, but in a few cases (21=6.6%) a few misdirected lashes were seen to be growing from the lower flap, which were promptly removed by electrolysis.

Subjective improvement of wellbeing, with absence of irritation, blepharospasm, photophobia, watering, discharge, and a gradual clearing of the cornea, were remarkable, as might be expected (Fig. 4).

Discussion

Extreme severity of trachomatous scarring calls for radical techniques and a combination of procedures for surgical correction (Callahan and Dortzbach, 1970), because these cases are often complicated by long-standing neglect, indigenous surgery and medication, and repeated attempts at correction. Some of these cases are amenable to tarsotomies (Hadija, 1960), including modifications of Weis's (Ballen, 1964; Sandford-Smith, 1976) or
enlarging the correction and maintaining it during the healing period; and the 'pedicled at both ends' skin graft, which always takes.

The method is simple, in that the graft is from the same lid. The polyethylene tube is readily available (it is smooth and pliable and cosmetically acceptable during the postoperative period). The procedure is short (average time 7 minutes), and it can be performed anywhere, usually as an outpatient procedure.

The only possible drawback to this procedure is the presence of minute downy hairs on the graft. This is prevented from rubbing the cornea by the anterior placement of the graft, taking the sutures at the lower border of the graft, suturing it to the anterior cilia-bearing layer, and leaving about 2 mm of free margin of the lower posterior flap.

The results are encouraging (93-8%) and, if particular attention is paid to the details of the procedure, recurrences may be entirely avoided and the downy hairs prevented from rubbing on the cornea. Functionally it is satisfactory. Cosmetically, the method is excellent, the postoperative appearance being most natural. There is no staring, no etropion, and no vertical shortening of the lid.

References

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