Single-stitch operation for senile entropion

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Butler (1948) described a simple operation for entropion; a triangular piece of tarsal plate and conjunctiva, base down and apex almost at the lid margin, was removed with blunt-tipped scissors "to avoid damage to the muscle fibers" (of orbicularis oculi).

Kwitko (1964) described a very similar procedure.

The operation reported here has been in use at the Sussex Eye Hospital, Brighton, for some years. A search of the literature has not revealed its previous publication. Its main difference from Butler's operation is that the fibres of the orbicularis are cut.

Procedure

- (1) Put anaesthetic drops in the conjunctival sac and inject the full thickness of the middle third of the lower eyelid with local anaesthetic.
- (2) Grasp and evert the lid with a large chalazion clamp.
- (3) Make a vertical incision through the middle third of conjunctiva and tarsal plate from its lower border almost to the lid margin.
- (4) With pointed scissors complete the incision as far as the skin, that is, cutting all the orbicularis fibres in front of the middle of the tarsal plate. The skin is rarely perforated and is easily sutured if necessary at the end of the operation.
- (5) Remove a triangular piece of conjunctiva and tarsal plate, apex towards the lid margin and base about 3 mm. long (Fig. 1).
- (6) Insert a figure-of-eight suture of 0000 catgut (the double-armed type is convenient) (Fig. 2). Remove the clamp and tie the ends so that the cut edges of the tarsal plate are brought together. The lower part of the tarsal plate is thus shortened and the longer upper margin bends forwards away from the eye. The suture is in the concavity of the buckle and clear of the cornea (Fig. 3). If the base of the removed triangle of tarsal plate is shorter than 3 mm. the buckle will be shallow and the suture will abrade the cornea; if it is longer, 5 to 8 mm. as Kwitko (1964) recommended, the lid margin will be left with a marked peak. Both of these complications of this type of operation were pointed out by Foulds (1961).
Eye ointment, *e.g.* Albucid 10 per cent., three times a day, is prescribed. A pad is rarely necessary. Normal lid contour returns in about 10 days (Figs 4 and 5).

Report

In fifty consecutive personal cases followed for between 12 and 30 months, there were two recurrences of the entropion. Over-correction did not occur in any case.

Ecchymosis and unsightly buckle of the lid margin after operation were remarked upon by many patients when they came for examination after two weeks, but the colour and contour of most lids were by then normal.

Four patients complained of postoperative irritation from the catgut sutures. Three of the four were in the earlier part of the series before the figure-of-eight suture was adopted in place of interrupted sutures.

A small granuloma formed in the wound in one case.

FIG. 1 Removal of triangular piece of conjunctiva and tarsal plate (surgeon's view)

FIG. 2 Insertion of figure-of-eight suture (surgeon's view)

FIG. 3 Suture in concavity of buckle and clear of cornea (surgeon's view)

FIG. 4 Left lower lid 2 weeks after operation (surgeon's view)

FIG. 5 Patient's appearance 2 weeks after operation

Three had had previous surgery for entropion: one a Wheeler's operation, another Wies's operation, and the third a skin and muscle resection.

Of the two recurrences, one was corrected by repeating the same operation and the other had a "modified Wheeler's" operation by another surgeon.

Discussion

Several factors have been described in senile entropion:

A. Upward movement and spasm of the fibres of the orbicularis (Kettesy, 1948; Ffooks, 1961; Dalgleish and Smith, 1966). In the present operation the orbicularis fibres are cut; failure to do this thoroughly can lead to recurrence. Presumably the cut ends of the fibres become involved in scar tissue, as after other operations, so that subsequent upward movement is prevented.

B. Senile enophthalmos with separation of the lower part of the tarsal plate from the eye, and degenerative flaccidity of the plate (Butler, 1948; Kirby, 1953). In the present operation the apparent slackness of the lower part of the tarsal plate is taken up and its apposition to the eye restored.

C. Rolling over of the upper part of the tarsal plate towards the eye (Kirby, 1953; Dalgleish and Smith, 1966). The latter paper included radiological proof.

In the present operation, as described above, a *vertical* buckle is fashioned and braces the tarsal plate against the tendency of its upper part to roll over. It is interesting that the entropion rarely recurs as the vertical buckle flattens with absorption of the suture.

The operation is short, simple, and conveniently done in the out-patients department and can be bilateral. It can be successful where recurrence has followed other operations, and, if itself unsuccessful, it can be repeated; it does not impede a different operation.

Many writers have remarked that high cure rates cannot be expected in senile entropion, and very many operations have been described (Fox, 1951; Schimek, 1957; Foulds, 1961; Dalgleish and Smith, 1966). Korchmáros (1968) summarized the problem neatly: "The 'cause' can only be eliminated by rejuvenation; at the moment we have to be content with the mechanical correction of the existing pathologic condition".

Mechanical correction by long and complicated operations is unnecessary if a small one gives as good results.

Summary

A small operation which cured 49 out of 50 cases of senile entropion is described.

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