

TARSECTOMY*

BY

A. J. BOASE

Uganda

IN a trachomatous country surgical measures for the relief of trichiasis-entropion far exceed other ophthalmic operations. There is a wide variety of choice from among well-established procedures, but the surgeon who is incessantly dealing with trachoma develops a preference for a particular approach. This paper describes the operation practised routinely at Mulago Hospital and taught to the medical graduates of Makerere College (the University College of East Africa). It has evolved from the economic necessity of ensuring the competency of District hospitals to cope with the problem of trachoma and its complications. Our experience of the operation extends over 25 years, and to-day the annual rate exceeds 2,000 lids (not including operations at District hospitals). Otherwise known as Saunders' or Heisrath's operation, it is in essence a subtotal excision of the tarsal plate with its adherent conjunctiva. There is therefore nothing original about it, but, since our technique differs in some respects from the descriptions of other writers—with advantage, I think—it seems fitting that an account should be set down for the benefit of those faced with the same problem; for the surgery of trachoma is remorseless in its demands. There is so much to be done that the time factor dominates all. When as many as twenty bilateral tarsectomies may form part of a morning's list, there is little time for refinement. With our technique both lids should not take more than 10 minutes' actual operating time (7 minutes is not extraordinary). Using two tables, we expect to do at least eight to ten cases in an hour—depending on the experience of the second surgeon, who is usually a recently qualified houseman.

Indications.—Trichiasis-entropion is the usual reason for the operation (Fig. 1, overleaf) but in my experience there is no more economical way of dealing with bad cases of Grade II trachoma (the type with gross shaggy hypertrophy and total macro-pannus) than by tarsectomy. Admitted in long-endured misery, such patients leave hospital in comparative comfort; progress of the pannus is arrested and in most cases is followed by appreciable regression. Trachoma, however, is not the only indication. The palpebral form of vernal catarrh with large vegetations is relieved by this operation. Spastic ectropion in children (often I believe induced by a malarial headache), which is usually so difficult to control, is immediately and permanently cured by tarsectomy. Moderate degrees of ptosis, congenital or otherwise, can be improved by tarsectomy (which after all is not very different

* Received for publication June 16, 1952. *

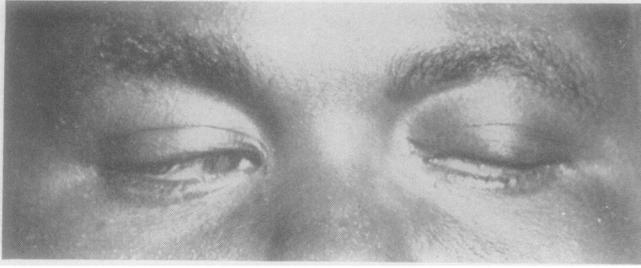


FIG. 1.—Pre-operative condition: gross entropion in left eye, severe in right. Trachoma Grade II-III. Patient unable to work; gets about with difficulty. History of disability—"Years".

from the Blaskovicz operation). For example, in one case, after a simple intracapsular extraction, the patient could see only by raising his senilely ptosed lid with his finger, and this prevented the use of glasses; a tarsectomy effectively uncovered the pupil and incidentally rejuvenated his appearance.

Operation.—(This description applies to the upper lid. A lower tarsectomy is essentially the same; it is more difficult, but is rarely necessary). The lid, infiltrated with procaine-adrenaline, is everted with Cruickshank's entropion forceps. This is an admirable tool for the job, though not if used as intended by its designer. We apply it thus:

The broad spatula blade is placed perpendicularly on the lid below the brow, and the three rat-toothed prongs on the skin 2 mm. behind the lashes. The forceps is closed and locked. A fold of skin and orbicularis is thus securely held, and when the handle is depressed towards the brow the lid immediately everts and remains so throughout the operation (Fig. 2). With tight, shrunken lids the handle may tend to fly back towards the cheek, but the weight of an artery forceps hung on the handle is enough to control this.

The exposed conjunctival surface is swabbed with dettol or cetavlon (no other pre-operative preparation is given), and the tarsus is incised from canthus to canthus with a B.P. No. 15 knife. The line of the incision is that of the subtarsal sulcus; it should not be any nearer to the lid margin. Most cases of Grade III trachoma show a well-marked sulcus in some part at least, and these are easy. In others, grotesquely distorted by fibrosis, even the Meibomian stomata are obliterated, and one has little indication as to where the lid margin may have been.

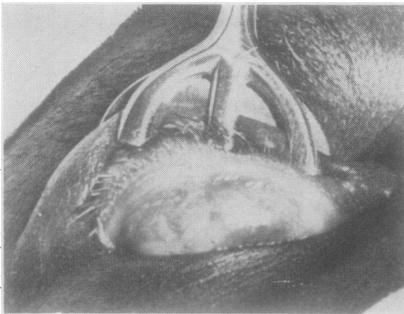


FIG. 2.—Eversion of lid with Cruickshank's forceps. The suggestion of "P.T.D." is an artefact.

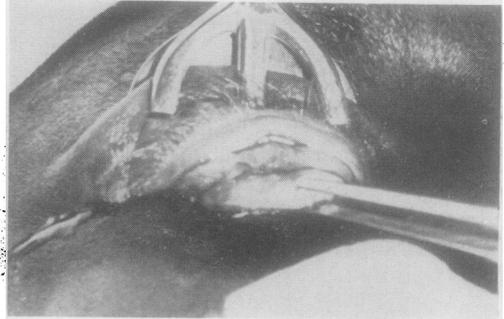


FIG. 3.—Tarsal plate held forward prior to being severed from the conjunctiva with scissors.

These cases are difficult, and beginners are apt to make the incision too near the lashes and to be surprised when they cut into the lash follicles. Although not of serious import, this error does not make for a good cosmetic result. In such cases the important landmark is the punctum, for, however distorted the tarsus and lid margin may be, the punctum retains its normal anatomic position. The incision should be begun just below the punctum, between it and the fornix, and be carried across to the outer canthus with a very slight convexity towards the lashes. Not infrequently, especially with the shrivelled tarsi of Grade IV trachoma, it will seem that the amount of tarsus excised is less than that left *in situ*. Yet the object of curing the entropion will be attained.

When the tarsus has been cut through, it springs forward, and its deep surface is cleaned with a few strokes of the knife, severing the levator fibres that find attachment to it. The upper edge of the plate is readily identified, and with curved scissors the conjunctiva is cut through close to it (Fig. 3). Where the conjunctiva is shrunken it should be freed towards the fornix, but generally this is not necessary. We never make any attempt to fashion a new fornix (the upper *cul-de-sac* with its harbourage for secretion and pathogens seems as redundant as the vermiform appendix; and its obliteration has no mechanical effect on the movement of the lid).

Three mattress-sutures bring the cut edge of the conjunctiva down to the lid margin. Our method of suturing is different in that we do not traverse the tarsal stump. We place the middle suture first, passing it first through skin and orbicularis just above the tarsal stump, then through the conjunctiva from its deep aspect about 1 mm. from its cut edge, then back through the conjunctiva from its superficial aspect alongside the first traverse, and finally out through the skin 2 mm. lateral to the entering limb. The suture is then tied with forceps and cut short. The other two sutures are dealt with in the same way. We use 2/0 plain catgut on curved atraumatic needles, and if each suture is tied and cut off as it is placed one 30" length of catgut suffices for about eight lids. Formerly we tied the sutures over a strip of rubber, but no disadvantage has resulted from omitting this. The Cruickshank forceps is removed after the suturing is completed (Fig. 4).

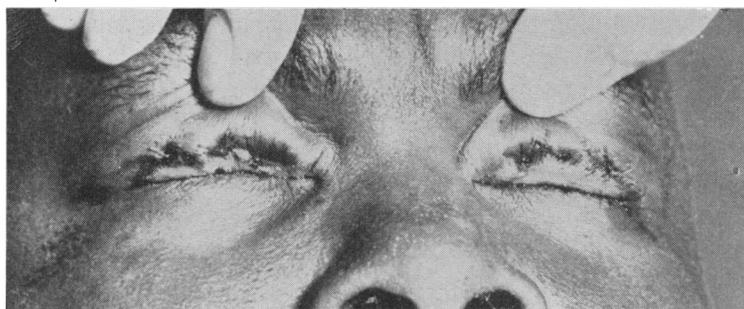


FIG. 4.—Immediate post-operative result. Analgesia is wearing off (owing to photography delays) and the patient tends to spasm.

The lid falls into place and any protruding connective tissue is tucked in or snipped off with scissors. The eyes are kept bandaged for 24 hours (but during the war we dispensed with this to save dressings).

Haemorrhage is rarely troublesome, but an occasional small artery may have to be twisted off. Buried ligatures are not used since the mattress-sutures give effective haemostasis. On the very rare occasions (out of thousands) on which I have had to deal with a persistent ooze, an extra mattress-suture has been quite sufficient.

After-Results.—Considering the appalling state of neglect in which most of our cases come to operation, and the lack of time for adequate pre-operative preparation, it is surprising how little reaction occurs. In a well-executed case, the appearance of the patient after a few weeks should hardly differ from that of a normal individual (Fig. 5). Indeed at later examinations one is frequently deceived by these tarsectomized cases; difficulty in lid eversion often reveals an unsuspected operation which the patient has forgotten or failed to mention

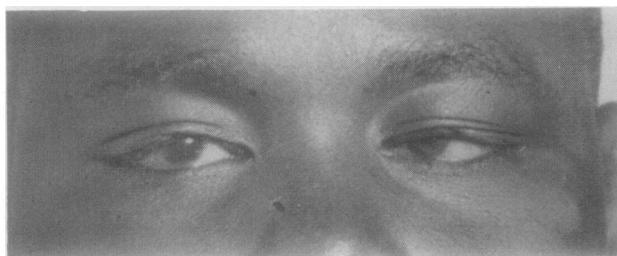


FIG. 5.—Appearance on 7th post-operative day: considerable improvement on this will follow. An unsuspected alternating squint is revealed, but the patient is now fit for full manual labour and no longer merits exemption from “poll-tax”.

It would be idle to claim that our results are invariably perfect. That failures do occasionally occur is not surprising, as many of the operations are performed by inexperienced housemen and much of the material would tax the ingenuity of more skilled surgeons. It is not always easy to determine the reason for a failure, the more so as it can usually be put right by reopening the wound and resuturing with better alignment. Persistent failures I deal with by a modified Arlt's plasty, an easy matter when there is a reasonable tarsal stump to work upon.

Allowing for the prejudice of an ophthalmologist, it may justly be claimed that of all surgical procedures this simple operation gives the highest economic return in a country where trachoma takes so heavy a toll of efficiency, for the majority of those benefited would otherwise be doomed to near-blindness.

Summary

A description is given of the operation of tarsectomy as routinely performed at Mulago Hospital, Uganda, in the surgical treatment of trachoma.