ON
AN IMPROVED METHOD
OF
ABSCISSION OF THE ANTERIOR
PORTION OF THE EYEBALL.

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IN certain cases of staphyloma of the cornea, and in other forms of spoiled eye, it is sometimes desirable to remove the anterior portion of the eyeball. In every instance in which there is any likelihood, or even any possibility, of the presence of disease of the deeper parts of the eye of a kind which might produce sympathetic ophthalmia of its fellow, it becomes necessary to enucleate the diseased organ as a whole, leaving a stump to be formed by its muscles only. But where this danger does not exist it is better to remain satisfied with the removal of the front portion. The posterior half or two thirds of the eyeball will form the nucleus of a comparatively large and movable stump, on which an artificial eye can be placed with greater advantage than on a stump composed of muscles alone.

In former times it was customary simply to cut off a corneal staphyloma, and to leave the rest of the eyeball to shrink and cicatrize in its own time. Mr. Critchett greatly improved on this method by the operation commonly called after his name. He transfixed the eyeball by three or four semicircular, threaded, needles, excised the portion in front of them, and then drew the needles through and tied their threads in such a manner as to unite the gaping wound in a horizontal line. The sutures passed through retina, choroid, sclerotic, and conjunctiva. The stumps obtained by this procedure are extremely good, and they present an internal and external angular projection, on behalf of which it is claimed that they afford to an artificial eye a hold of peculiar excellence. I have practised this operation many times, and with the best results.

Early in last year, however, a strong, healthy, agricultural labourer came to St. George's Hospital, with complete staphyloma of his right cornea, the result of a wound from a thorn received while "hedging." The eye was lost as an organ of vision, and the protrusion was unsightly. I performed Mr. Critchett's operation, and obtained a stump which appeared to leave nothing to be desired. The man returned to his home, but came back in a month or six weeks with advanced sympathetic ophthalmia of his remaining eye. Enucleation of the stump was immediately practised; but the ophthalmia resisted all treatment, and ended in total loss of sight.

It is well known that the ordinary cause of sympathetic ophthalmia is irritation of a ciliary nerve. In this case it is possible that the irritation may have been due only to the traction of the cicatrix; but I think it more likely that a ciliary nerve was lacerated by one of the transfixing needles. Such an accident, although the chances are many that it will not happen, is one that cannot be guarded against; and I therefore set myself to contrive a substitute for Mr. Critchett's operation, one which should avoid all risk, and which should secure all its advantages.

For this purpose I now divide the conjunctiva, with

scissors, close to the corneal margin, and detach it from the subjacent parts nearly to the equator of the eyeball. I then take a squint hook with an eye in its point, carrying a fine silk thread, and by this means I pass a separate ligature under each of the recti muscles in succession. I tie each ligature around the tendon under which it lies, about a line from its insertion into the sclerotic, and then divide each tendon at its insertion, so that I can still command the muscles by the ligatures attached to them.

The next step is to remove, in the ordinary way, as much of the eyeball as circumstances may require. This done, I take a needle threaded with fine carbolized catgut, and pass it through the tendons of the superior and inferior recti, just behind the ligatures. The ligatures are then cut and removed, and the two tendons are united, in front of the gaping remains of the eyeball, by tying the catgut suture. The external and internal recti are then united in a similar manner by a second catgut suture. The ends of the catgut sutures are cut off as closely as possible, and the last step of the operation is to unite the edges of the conjunctival wound in a horizontal line, by three or four points of fine silk suture. In some cases the catgut threads cut their way out and are cast off, in others they remain and are absorbed; but this difference does not seem to affect the result. In any case, the coats of the eyeball, except the conjunctiva, sustain no other injury than a clean incision, and are not dragged upon in any way, either during or after the healing process. The recti muscles become firmly united in front of the stump, so as at once to form a protective cushion over its surface, and to act upon it advantageously as regards its movements. [A patient was in attendance on whom the operation had been performed three weeks previously, and the Fellows were able to judge for themselves of the quality and mobility of the stump.]

The operation requires a minute or two more for its performance than that introduced by Mr. Critchett, but this does not constitute a serious disadvantage. It would be quite possible to dispense with the ligatures on the tendons;

but they give complete and immediate command of the severed muscles, and the time spent in tying them is probably redeemed by the convenience of their presence. The essential points which I wish to bring before the Society are the avoidance of injury to the ocular tunics, and the mobility conferred upon the stump by the slight advancement of the recti muscles.