INCOMPLETE AVULSION OF THE EYE—REPORT OF A CASE *

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THIS case is of interest because it shows how much functional recovery can follow severe damage to the ocular tissues.

In a port in the Middle East on September 6, 1942, Fireman T.C., aged 29 years, of the Merchant Navy, was assaulted by a soldier who attempted to gouge out his right eye with a spike-ring.

On the following day he was admitted to a (Scottish) General Hospital, where he was examined by Capt. J. Howat, R.A.M.C., graded ophthalmologist, and myself. His condition was as follows:—

1. A continuous clean-cut oval incised wound through the upper and lower lids including their conjunctiva separated them from the orbit through most of their extent, and caused them to be flapped outwards on a temporal base. The cut did not pass right into the inner canthus, but transversed the upper and lower lid margins about the junction of the outer three-quarters and inner quarter.

2. The globe was extremely proptosed between the surrounding oedematous tissues, and could not be replaced. All four recti muscles were completely severed from their global attachments at distances varying from 2-6 mm. (approximately). The conjunctiva showed a circular wound roughly concentric with the limbus.

3. The vitreous showed a very extensive haemorrhage which together with the corneal haze prevented a view of the fundus. The visual acuity was perception of hand movements.

Under a general anaesthetic operation was performed on the day of admission. With difficulty the recti muscles were sought for in the orbit. They were stitched to their insertions; it was hoped to their respective insertions, as orientation presented difficulties. Only during the convalescence was there a reassurance that the internal and inferior recti had not been made to change places. The conjunctival wound was closed (no fresh incision had been necessary), and the lids brought back to their positions.

Convalescence was uneventful, and after seven weeks the patient was discharged to his ship. The condition was satisfactory, vision was 6/24, and the vitreous had greatly cleared, but not sufficiently

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to permit a good view of the fundus. Through unavoidable circumstances the patient was lost sight of until January 24, 1944, when he again came under observation, still in the Middle East, but in a different country. He complained of some diplopia when looking forward and to the left. The right eye showed a slight

RIGHT.

divergence with some limitation in adduction. Otherwise the ocular movements were good. The right eye showed a pronounced optic atrophy with an otherwise normal fundus. The media were clear. The visual acuity of the right eye was 6/9. The field showed some concentric contraction (see chart) and a small paracentral scotoma, but even so the visual loss was not in keeping with the marked pallor of the disc.

On January 27, 1944, the right external rectus muscle was lengthened.

This present condition is indicated in the accompanying photographs. There is no diplopia on looking forwards, but some on looking far to the left. The movements are all good except adduction of the right eye, which is still somewhat limited on binocular use of the eyes, but almost complete when the right eye only is used, as indicated in the photograph. He is back to his duties,

which, apart from the time spent for the second operation, have been uninterrupted since his discharge from hospital in 1942.

There appear to be two possible explanations for the optic nerve atrophy. Either there has been a stretching and tearing of nerve fibres, with the fortunate escape of those serving the central field, or else the orbital haemorrhage has compressed the peripheral fibres of the nerve proximal to the level where the macular fibres leave the periphery of the nerve to course in its central portion.

This case is published with the kind permission of Brigadier G. I. Scott, Consultant Ophthalmologist, Middle East Forces.