CASE NOTES

MELANOMA OF IRIS TREATED BY RADIATION THERAPY*

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A married woman, aged 76, was first seen in October, 1952, when she showed a melanoma of the iris in the left eye (Fig. 1). She had been examined at the Oxford Eye Hospital in February, 1949, when this condition was definitely not present, and she herself was quite positive that it had only appeared during the previous few weeks. On examination with the gonioscope the tumour was seen to run well back into the chamber angle and in view of this was judged unsuitable for flap iridectomy or similar operation. Enucleation was advised and staunchly declined.

FIG. 1.—Melanoma of iris at diagnosis.

The opinion of Dr. Frank Ellis was therefore sought in regard to possible radiation therapy. In consultation with him a technique was envisaged by which radioactive tantalum wire might be inserted into the globe in the region of the tumour.

Operation.—This was performed on November 18, 1952 (Figs 2 and 3, overleaf). Hollow needles were passed across the anterior and posterior chambers in the region of the tumour. The first needle to be inserted was that passing behind the iris and in front of the lens. This rather difficult procedure was accomplished with only the minor mishap of the point of the needle catching for a few moments on the back of the iris and causing a small dialysis. When freed, it passed through the opposite edge of the sclera quite easily and lay there. During this proceeding the aqueous humour had been lost and the eye had become soft. It was therefore necessary to make puncture and counter-puncture with a Graefe knife to enable the insertion of the second needle across the anterior chamber. The appropriate amount of radioactive tantalum wire was then slipped along into each needle with inert "stoppers" at each end to hold it in position. The projecting ends of

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FIG. 2 (a).—Position of needles in relation to tumour.
(b).—Construction of hollow-bore needle with tantalum wire.

FIG. 3.—Section showing position of needles in relation to tumour.

the two needles were, after some hesitation, sunk into counter-punctures in the upper and lower lids so that the lids lay snugly against the globe. The globe was then fixed in relation to the lids by means of two sutures passing through the lid-edges and limbus in each case. Surprisingly enough, these needles were retained for the necessary 30 hours or so without any undue pain or discomfort. They were then removed in the operating theatre. The approximate radiation dose to the tumour was maximum 6,720 r, minimum 4,000 r.

Progress.—The tumour has remained exactly the same in appearance ever since, and the eye has settled down quite rapidly after this rather formidable surgical procedure. Fig. 4 shows the condition 16 days after operation.

One year later it became necessary to consider the visual needs of the patient. The left was her better eye, vision in the right eye being reduced to 6/60 only, owing to lens changes and macular disorder. At this time, the left eye was not correctable beyond 6/36 owing to lens changes, and it was noticeable that these had not appreciably increased since the radiotherapy, and that the correctability had remained the same throughout. After consultation with my colleagues, I decided to do a straight-forward intracapsular cataract extraction and not to make any attempt to remove the tumour.

FIG. 4.—Eye 16 days after operation.

This was performed in November, 1953. The eye settled down uneventfully and after a few weeks a correction was provided which produced a central vision of 6/18. The macula, now visible after removal of the lens, showed some pigmentary atrophy.

The eye has remained exactly the same to the present day.

Dr. Ellis assures me that this is the normal behaviour for a melanoma after adequate radiotherapy and that these tumours do not normally disappear after such therapy but become quiescent as in this case.