A thin layer of sclera is left over the base of the neoplasm to ease its manipulation from the eye and remove the deeper scleral layers which might be infiltrated by it. It is well to make this deep layer of sclera quite thin, from 3 mm. wide of the neoplasm to the periphery of the exposed site, so as to see as well as possible the basal periphery of the malignant melanoma.

Sutures of 4/0 chromic catgut are passed through each corner of the scleral flap. A stay-knot is tied on the free end of each suture and is drawn flush with the sclera, and the sutures are then carried through each anterior corner of the sclerotomy incision (Fig. 1). The scleral flap is reflected posteriorly. Circumvallation of the neoplasm by surface diathermy is done through a square-ended terminal, which is applied at least 3 mm. wide of the circumference of the neoplasm, using a current of about 30-40 ma, for 3 to 4 seconds.
PARTIAL CHOROIDECTOMY

The scleral flap is closed by drawing on the corner sutures with stay-knots. These are tied and the three edges of the flap incision are sutured at 2 mm. intervals by interrupted 5/0 chromic catgut sutures.

If 0·25 ml. of vitreous has been aspirated, it is replaced through the scleral puncture over the pars plana and the suture traversing this puncture is then drawn taut and tied.

In neither of the two patients operated on by this technique was there any extrusion of vitreous. One had 0·25 ml. of vitreous aspirated and replaced and for the other this was not done.

Case Reports

Case 1, a man aged 56, attended St Bartholomew's Hospital in March, 1935. He had bilateral malignant melanoma of the choroid, affecting the lower temporal quadrant of the right eye (Visual acuity 6/12) and the upper temporal quadrant of the left eye (doubtful perception of light).

Previous treatment.—The left eye was excised. Mr. Foster Moore sutured 4 × 1 mC radon seeds to the sclera over the base of the neoplasm in the right eye. The neoplasm became much reduced in size until December, 1937, when it began to grow and the retina became detached, the visual acuity being hand movements, projection of light accurate. The patient declined further treatment until August, 1938, when he agreed to partial choroidectomy.

Operation.—I reflected a scleral flap 10·5 × 7 mm. over the base of the neoplasm hinged on the temporal side. An intrascleral deposit of malignant melanoma was treated by diathermy fulguration. The technique of partial choroidectomy was performed as described above, except that the choroid was incised with a cutting diathermy needle within the surface diathermy circumvallation.

A vitreous haemorrhage occurred 3 weeks after operation but cleared sufficiently for ophthalmoscopic examination in October, 1940, to show no evidence of recurrence of the neoplasm.

Progress.—Later the retina became detached in the lower part of the eye, and transillumination of the eye was negative. The patient died in October, 1941, with metastases in the right lung, pleura, and both legs.
Case 2, a married woman aged 38, had a malignant leiomyoma of the iris and ciliary body between 5 and 6 o’clock.

Previous treatment.—A partial iridocyclectomy was done and it seemed evident at the time of operation and from the pathological sections that the line of excision was very close to the neoplasm posteriorly. 16 months later a raised buff-coloured mass appeared in the anterior part of the choroid between the ora serrata and the equator and within the 5 and 7 o’clock meridia. It was unaltered by an application of an $^{60}$Co radio-active applicator and by light-coagulation.

Operation.—Partial choroidectomy through a hinged scleral flap 14 x 14 mm. was done on February 23, 1965. There was no vitreous loss, the retina was seen intact through the scleral opening, and post-operative healing was uneventful.

Progress.—Subsequently lens opacities have occurred and are progressing. It is possible that these were caused by attempts to destroy the neoplasm so far forward in the choroid by radiotherapy and light coagulation.

Pathological Report.—Sections of the excised neoplasm showed that it had been completely removed in all planes. It was a heavily-pigmented malignant melanoma of the choroid composed of epithelioid cells with a light reticulin network. It is possible that some cells from the iris and ciliary body neoplasm may have remained at the posterior edge of the partial cyclectomy operation done 2 years previously. If this was so the transition of malignant leiomyoma to malignant melanoma is the first recorded instance of this event.

Summary

The technique of partial choroidectomy for malignant melanoma is described. Clinical details of two patients are recorded.
Partial choroidectomy.

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