

U-shaped retinal tear

Associated with a presumed malignant melanoma of the choroid

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The purpose of this paper is to report a case of presumed malignant melanoma of the choroid associated with an overlying U-shaped tear. This type of retinal hole is commonly found in association with a simple retinal detachment and is thought to be caused by vitreous traction on the retina at the point of the tear. This kind of tear has not been reported previously in connexion with a malignant melanoma of the choroid, although other types of retinal holes have been described in association with a malignant melanoma. This is the first case of any retinal hole photographed *in vivo* in the presence of a malignant melanoma. Lister (1924) was able to state that the presence of a retinal hole in an eye with a retinal detachment precluded the presence of a malignant melanoma. This was supported by Duke-Elder (1940), but later Duke-Elder (1967) stated that a few cases of malignant melanoma with a hole in the same eye had been reported. Berson, Bigger, and Smith (1967) reviewed the literature and found thirteen cases and added another of his own; in no single instance was a U-shaped (traction) tear reported.

Case report

A 56-year-old woman was first seen at another hospital with a history of floaters in the right eye. These symptoms had been present for several months. Examination revealed a solid upper temporal detachment with "retinal holes". The lesion was round, grey, and speckled with pigment. She was seen by a number of senior ophthalmologists who agreed upon the diagnosis of a malignant melanoma. She was treated by a ring of light coagulation to try and limit the extension of the detachment and then referred to London.

Examination

A month later she was found to have a U-shaped retinal tear overlying a solid detachment of the retina in the upper temporal region of the right eye (Figure). The solid appearance of the underlying tumour was considered to be typical of a malignant melanoma by several observers. The left eye was normal. Diagnosis was greatly facilitated by examination with the indirect ophthalmoscope.

Therapy

The tumour was treated by the application of a radioactive cobalt plaque (Stallard, 1966) and the retinal detachment, which persisted after satisfactory tumour resolution, was treated at a later date by a Lincoff procedure (Lincoff, Baras, and McLean, 1965); fluid was not released.

Result

18 months later the retina was flat.

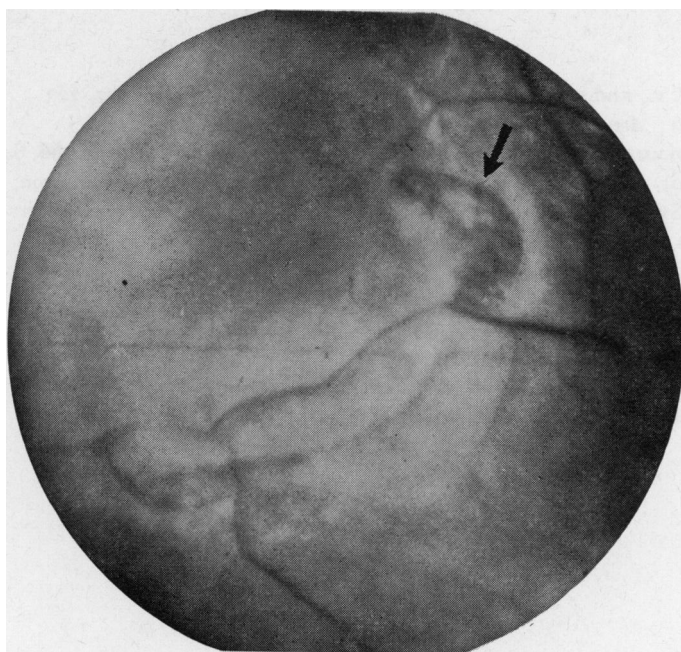


FIGURE Arrow points to edge of clinical U-shaped tear through which was seen the typical surface of a malignant melanoma

Discussion

Berson and others (1967) reported a round hole in an area of serous detachment associated with but not over a malignant melanoma.

Bierman (1958) reported a case of giant retinal tears in an eye with a malignant melanoma, but its relationship to the tumour was not clear.

Boniuk and Zimmerman (1962) and McGraw (1951) noted retinal holes in eyes with malignant melanomata, but the holes were not related to the tumours anatomically.

Manschot (1964) described a "straight retinal rupture" associated with a malignant melanoma. Manschot (1965) also described the histology of a retinal hole, not seen clinically, but found on pathological examination. This hole lay in a degenerate retinal cyst overlying the tumour.

Morgan (1956) reported a case of malignant melanoma with a retinal hole situated elsewhere in the retina. The tumour in his case was treated by enucleation and some time later the other eye suffered a simple detachment.

Conclusion

A unique case of a U-shaped retinal tear directly overlying a presumed malignant melanoma is described. This indicated that this type of retinal hole, which is normally associated with vitreous traction and simple retinal detachment, does not necessarily exclude the possibility of an underlying malignant melanoma. The binocular indirect ophthalmoscope proved to be invaluable as a diagnostic instrument.

We wish to thank Miss Wendy Taylor for secretarial assistance, and the Audio-Visual Department of the Institute of Ophthalmology for providing the illustration.

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