Progression of an iris melanoma over 41 years

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Abstract

An iris melanoma first recorded in 1945 progressed over a period of 41 years to produce secondary glaucoma resulting in enucleation. The case illustrates the advancing nature of such lesions.

In 1945 a 37-year-old woman was noted to have a vascularised iris tumour inferonasal in her right eye (Fig 1). The lesion extended to the drainage

angle, and a second small nodule was noted in the angle superonasally. Visual acuity was 6/6 in both eyes.

The lesion was observed, and a sectorial lens opacity developed after eight years. The tumour enlarged slowly. Between 1976 and 1986 there was recurrent haemorrhage into the anterior chamber, and secondary glaucoma developed (Figs 2, 3). Gonioscopy showed extension of the tumour round the drainage angle for 180°. Her visual acuity deteriorated to 6/60.

Figure 1: Appearance of the iris tumour in 1945. Note the small nodule peripherally between 2 and 3 o'clock.

Figure 2: 1981 The tumour has enlarged and the lens is cataractous below.

Figure 3: 1986 Recurrent haemorrhage and subsequent secondary glaucoma.

The eye was enucleated in 1986, and pathological examination revealed a lightly pigmented malignant melanoma of predominantly spindle B cell type. The tumour had extended to involve the drainage angle for almost 360° and showed some extension to the ciliary body (Figs 4-6). The patient has remained well since enucleation.

Discussion

The case emphasises the slowly progressive course of iris melanomas.¹⁻⁷ The lesion appeared fairly static for 30 years. It then spread round the angle to form a ring melanoma and was complicated by recurrent haemorrhage. Apparent lack of growth of iris melanocytic tumours may be due to very slow enlargement which can remain clinically undetectable over some years.⁶ The slow progression of the tumour supports the current trend towards more conservative management of iris tumours,^{4,6} the decision to enucleate being made because of intractable glaucoma. The change in behaviour may well reflect a change towards a more malignant cell type.^{4,5} The case also provides an interesting early example of the use of colour photography to record clinical appearances.

Figure 4: Macroscopic view of anterior segment showing tumour mass extending to drainage angle.

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Figure 5: Photomicrograph showing lightly pigmented iris melanoma invading drainage angle structures. (H-E, $\times 100$.)

Figure 6: Higher power photomicrograph of spindle B iris malignant melanoma. (H-E, $\times 400$.)

- 1 Duke JR, Dunn SN. Primary tumours of the iris. *Arch Ophthalmol* 1958; **59**: 204–14.
- 2 Rones B, Zimmerman LE. The prognosis of primary tumours of the iris treated by iridectomy. *Arch Ophthalmol* 1958; **60**: 193–205.
- 3 Ashton N. Primary tumours of the iris. *Br J Ophthalmol* 1964; **48**: 650–68.
- 4 Jakobiec FA, Silbert G. Are most iris 'melanomas' really nevi?

- Arch Ophthalmol* 1981; **99**: 2117–32.
- 5 Geisse LJ, Robertson DM. Iris melanomas. *Am J Ophthalmol* 1985; **99**: 638–48.
- 6 Territo C, Shields CL, Shields JA, Augsburger JJ, Schroeder RP. Natural course of melanocytic tumours of the iris. *Ophthalmology* 1988; **95**: 1251–5.
- 7 McGalliard JN, Johnston PB. A study of iris melanoma in Northern Ireland. *Br J Ophthalmol* 1989; **73**: 591–5.