

A Black Mass on the Optic Disc

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Optic disc melanocytomas are uncommon tumours which are pigmented and considered benign, with little or no effect on the patient's vision. We report the case of a 62-year-old Chinese female who had a large optic disc melanocytoma causing severe visual loss, a relative afferent pupillary defect and visual field defects.

Key words: Differential diagnosis, Nevus, pigmented, Optic disc, Optic nerve neoplasms, Vision, low

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Introduction

Patients with optic nerve head melanocytomas generally have good vision. We present a case with a large optic nerve head melanocytoma and severe visual loss.

Case Report

A 62-year-old Chinese female, with no past medical or ophthalmic history, presented with a year's history of progressive, painless blurring of vision in the right eye. On examination, the visual acuity was 6/120 in her right eye and 6/9 in the left, with a grade 3 relative afferent pupillary defect (RAPD) on the right, and inability to read any of the Ishihara pseudo-isochromatic plates. Fundus examination of the right eye revealed a large, heavily pigmented, raised melanocytoma with typical feathery edges involving the

Figure 1. Large melanocytoma involving the entire optic nerve head in the right eye.

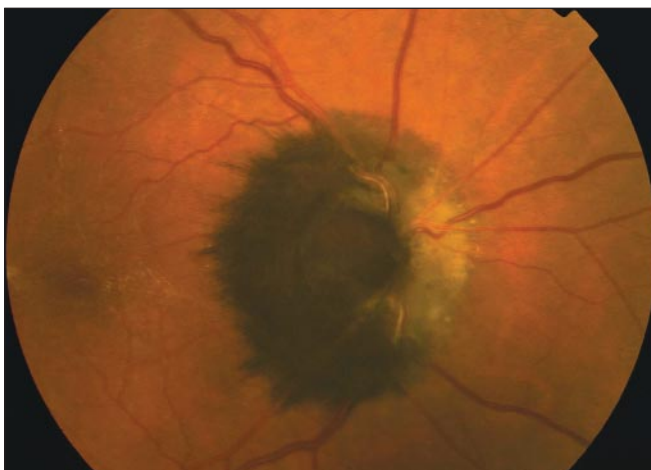
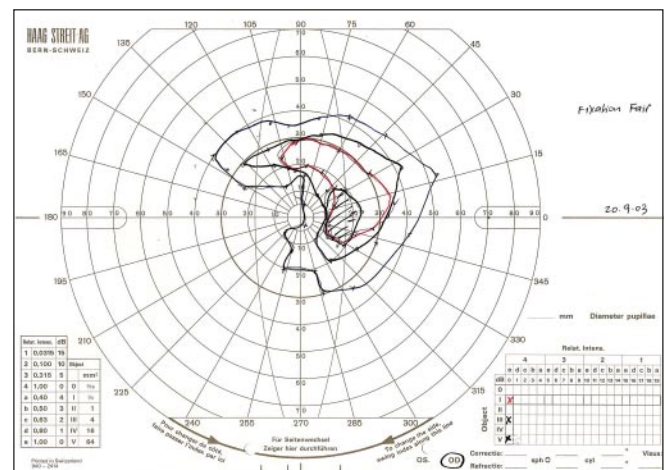


Figure 2. Goldmann visual field of the left eye: normal visual field.



entire optic nerve head and completely obstructing its view while the rest of the retina was normal (Figure 1). Goldmann perimetry showed an enlarged blind spot with a severely constricted peripheral visual field. B scan ultrasonography confirmed that the lesion was situated on the surface of the optic nerve. The left eye was entirely normal (Figure 2).

Discussion

Melanocytomas are classically asymptomatic with little or no effect on visual acuity. Thus, the findings of severe visual loss, a RAPD and a restricted peripheral visual field in this patient are unusual. The proposed mechanisms for poor vision associated with optic nerve head melanocytoma include tumour necrosis and retinal nerve fibre compression, with resultant impaired axoplasmic flow.¹ Other rare causes are malignant transformation of the melanocytoma,²⁻⁴ and secondary central retinal vascular occlusion.⁵ Joffe et al⁶ and Osher et al⁷ showed that few patients with optic nerve head melanocytoma have poor vision, while Usui et al⁸ found the opposite. Osher et al⁷ further reported that while most

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of his subjects had enlarged blind spots, some had concomitant retinal nerve fibre bundle type visual field defects. In addition, a proportion of these patients had an RAPD.

Our patient's clinical presentation was possibly either the result of tumour compression on the peripapillary retinal nerve fibres, or compromised optic nerve head vascular perfusion. The alternative diagnosis of a malignant melanoma of the optic nerve head was unlikely because malignant melanomas are extremely rare among Asians.⁹ Such patients require follow-up with regular optic disc photography in order to identify any increase in tumour size, which may suggest malignant change.

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