Melanoma of the choroid – Assessment

Malignant melanoma, Uveal melanoma

DESCRIPTION

Choroidal melanoma is a malignant neoplasm of uveal melanocytes, and is the most common primary intraocular malignancy in adults. Since melanoma has a strong tendency to enlarge and metastasise, accurate and timely diagnosis often has a strong influence on the patient's prognosis.

SYMPTOMS

Choroidal melanomas are often asymptomatic, particularly in the early stages. Visual symptoms of floaters or flashing lights in the presence of a pigmented lesion on fundoscopy are suggestive of malignancy. Depending on the location and invasiveness of the tumour, progressive growth and fluid leakage may result in decreased visual acuity or visual field defects. Ocular pain is generally a late symptom resulting from glaucoma or inflammation. Extraocular extension may produce proptosis or a visible tumour mass.

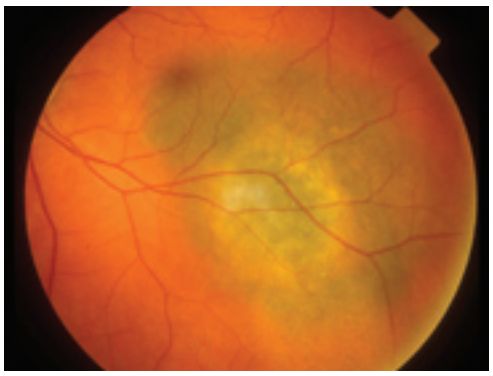
Patients with choroidal melanoma may describe a past history of melanoma at other sites, or systemic symptoms (including bone or abdominal pain, anorexia or weight loss) suggestive of metastatic disease.

SIGNS

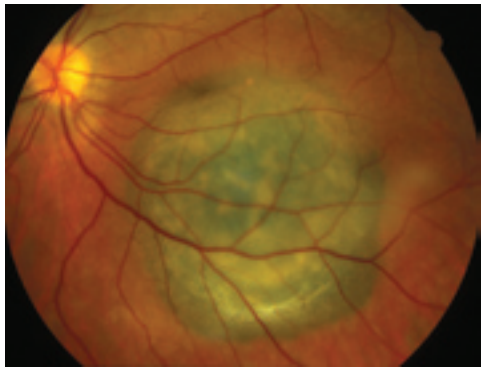
Choroidal melanoma often appears as a brown, dome-shaped choroidal mass. A minority of the tumours are pale (amelanotic). Clinical features supportive of the diagnosis – particularly in the case of small or atypical lesions – include:

- Continued growth during adulthood. As the tumour grows, it may break through Bruch's membrane into the subretinal space and acquire a mushroom-shaped appearance
- Tumours larger than three disc diameters wide or more than 2mm thick
- The presence of orange (lipofuscin) pigment on the surface of the lesion is common, although not diagnostic. The overlying retina and retinal pigment epithelium (RPE) may show other degenerative changes
- Location of the edge of a lesion within 2mm of the optic disc
- Serous retinal or macular detachment. Retinal detachment is the most common cause of visual loss associated with choroidal melanoma.

Other signs, particularly in advanced disease, include vitreous haze or haemorrhage, choroidal neovascular membranes and proptosis from orbital invasion. The further the tumour is located from the optic nerve or fovea, the greater potential for growth before visual symptoms occur.



Choroidal melanoma affecting the left fundus of a 45-year-old male. Following the explanation of treatment options by the ophthalmologist, he elected to be regularly observed



Medium-sized malignant melanoma. The lesion is elevated and impacting the fovea

PREVALENCE

Choroidal melanoma is the most common primary intraocular malignancy in adults, with a prevalence of six to eight cases per million population. Risk factors include increasing age, male sex and fair skin.

SIGNIFICANCE

Choroidal melanoma is life-threatening, due to its malignancy and risk of hematogenous metastasis to distant sites. There are several benign differential diagnoses requiring careful exclusion prior to commencing treatment.

DIFFERENTIAL DIAGNOSIS

Choroidal naevus, Choroidal haemangioma, Congenital hypertrophy of the retinal pigment epithelium (CHRPE), Age-related macular degeneration, Lymphoma – intraocular, Retinal detachment, Choroidal detachment, Choroidal metastasis, Posterior scleritis.

SEE ALSO

Neurofibromatosis.

MANAGEMENT

See Choroidal melanoma – Management.

The full series of these articles will be available in the book *Posterior Eye Disease and Glaucoma A-Z* by Bruce AS, O'Day J, McKay D and Swann P. £39.99. For further information click on the Bookstore at **opticianonline.net**

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