

Clinical features of patients presenting with choroidal melanoma at Eye Foundation Hospital, Ikeja, Lagos, Nigeria

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Background: Ocular melanomas are the most common primary intraocular tumors in adults, with the choroid being the most frequently affected uveal site.^{1,2} Their incidence is highest among populations of European ancestry and lowest among Asian and African populations. Clinical presentation varies depending on tumor location. Diagnosis is typically non-invasive, relying on slit-lamp examination, fundus evaluation, and ultrasonography.

This case series describes four patients seen between 2010 and 2025 with choroidal melanomas, highlighting their clinical presentations, fundus findings, and ultrasonographic features (A- and B-scan).

Case Series

Case 1

A 58-year-old female of British (Caucasian) origin presented with a 6-week history of progressive vision loss in the right eye. Visual acuity (VA) was 3/60 (right) and 6/6 (left). Fundoscopy revealed a large pigmented mushroom-shaped lesion in the inferotemporal quadrant, within 2 disc diameters of the optic disc, measuring approximately 8 disc diameters, with adjacent subretinal fluid. Cup-disc ratio was 0.2. The left fundus was normal. Ultrasound B scan showed an inferotemporal dome-shaped mass with low reflectivity on A-scan and orbital shadowing.(Table 1, Figure 1a) A diagnosis of right choroidal melanoma was considered, and patient was referred to an ocular oncology center in her home country.

Case 2

A 46-year-old male of African descent presented with complaints of an overhanging

shadow in the superior visual field of the right eye. VA was 6/6 bilaterally. Fundoscopy showed a dome-shaped hyperpigmented inferonasal mass overlapping the optic disc, measuring 8 disc diameters, with perilesional orange pigments but no sentinel vessels or subretinal fluid. The left fundus was normal. Ultrasound revealed a mushroom-shaped mass with homogeneous opacity on B-scan, low internal reflectivity on A-scan, choroidal excavation, and orbital shadowing.(Table 1, Figure 1b) A diagnosis of right choroidal melanoma was made, and the patient was referred to the oncology unit of a tertiary hospital.

Case 3

A 45-year-old female of African descent presented with reduced vision in her left eye. VA was 6/6 (right) and 6/18 (left). Fundoscopy showed a large parapapillary hyperpigmented mass (>12 disc diameters) in the nasal and superonasal quadrants, with indistinct margins and extensive subretinal hemorrhage obscuring the optic disc.

Ultrasound demonstrated a large dome-shaped choroidal mass with low reflectivity, choroidal excavation, orbital shadowing, and associated exudative retinal detachment.(Table 1, Figure 1c) A diagnosis of left choroidal melanoma was considered, and the patient was referred to the teaching hospital's ocular oncology service.

Case 4

A 29-year-old male of African descent presented with a 1-month history of progressive visual loss, diplopia, and floaters in the right eye. He had previously received 3 intravitreal bevacizumab injections at another facility without improvement. His initial diagnosis was not available for review. VA was 6/12 (right) and 6/6 (left). Fundoscopy showed a large superotemporal choroidal mass overlapping the optic disc (~10 disc diameters), with associated exudate and exudative retinal detachment. The left eye was normal.

Ultrasound revealed a large dome-shaped choroidal mass with exudative detachment. A-scan showed low internal reflectivity with choroidal excavation and orbital

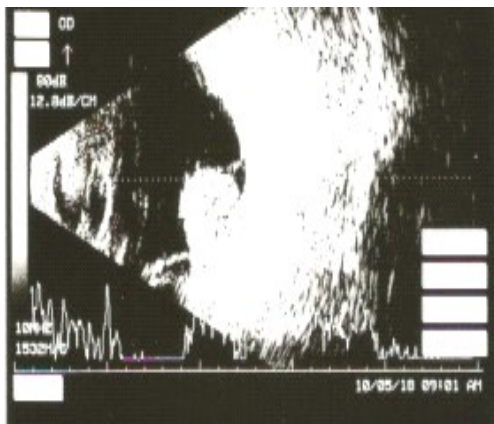


Figure 1a

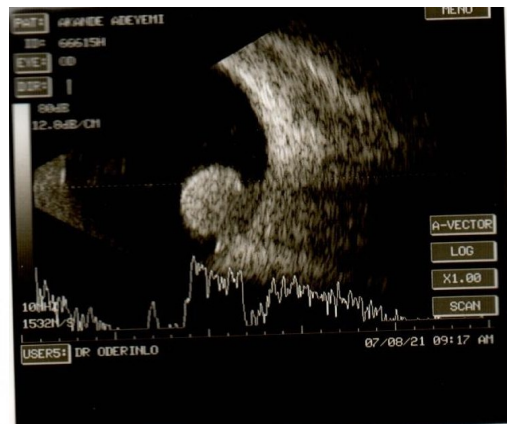


Figure 1b

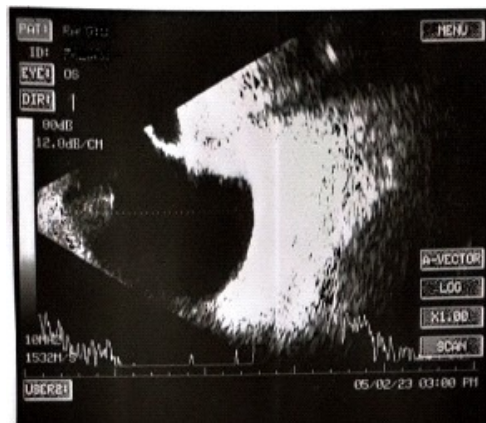


Figure 1c

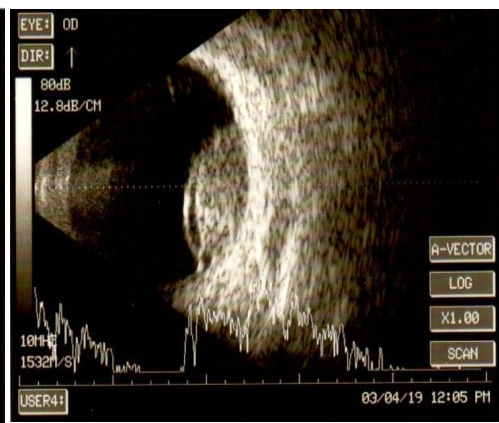


Figure 1d

Figure 1. Ultrasound A and B scan features of patients presenting with ocular melanoma in Eye Foundation Hospital Lagos, Nigeria. Showing mushroom and dome shaped choroidal masses with orbital shadowing.

shadowing.(Table 1, Figure 1d) Right choroidal melanoma was diagnosed, and a Positron Emission Tomography (PET) scan was requested, but the patient was lost to follow-up.

Discussion: This case series highlights the rarity of choroidal melanoma in our setting: only four patients were diagnosed over 15 years (2010–2025). This reflects the lower incidence of ocular melanoma in African populations, possibly due to the protective effect of increased choroidal melanin in darker skin.

Ultrasonography was the principal diagnostic tool, with consistent findings across cases: dome- or mushroom-shaped masses, low internal reflectivity on A-scan, homogeneous opacities on B-scan, choroidal excavation, orbital shadowing, and frequent association

with subretinal fluid or exudative retinal detachment.

Outcomes of management of reported cases were not available to the authors.The low awareness of intraocular tumors in Africa may delay diagnosis.^{8,9} Increased clinical vigilance is therefore warranted, even in populations with low incidence.

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Table 1: Summary of the clinical and ultrasonic features of patients with ocular melanoma

Case	Age	Gender	Melanoma location	Subretina fluid	Shape on B scan	A scan reflectivity	Orbital shadowing	Choroidal excavation
1	58	Female	Inferotemporal	Yes	dome	low	Yes	Yes
2	46	Male	Inferonasal	No	Mushroom	low	Yes	Yes
3	45	Female	Superonasal and Nasal	Yes	dome	low	Yes	Yes
4	29	Male	Superotemporal	Yes	dome	low	Yes	Yes

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