

Optic nerve melanocytoma and its differential diagnosis: case presentation

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CASE PRESENTATION

A 76 year old man presented to our hospital due to gradually decreased visual acuity in both eyes.

Best corrected visual acuity (BCVA) was 6/10 in the right eye and 4/10 in his left eye

Significant subcortical cataract in both eyes

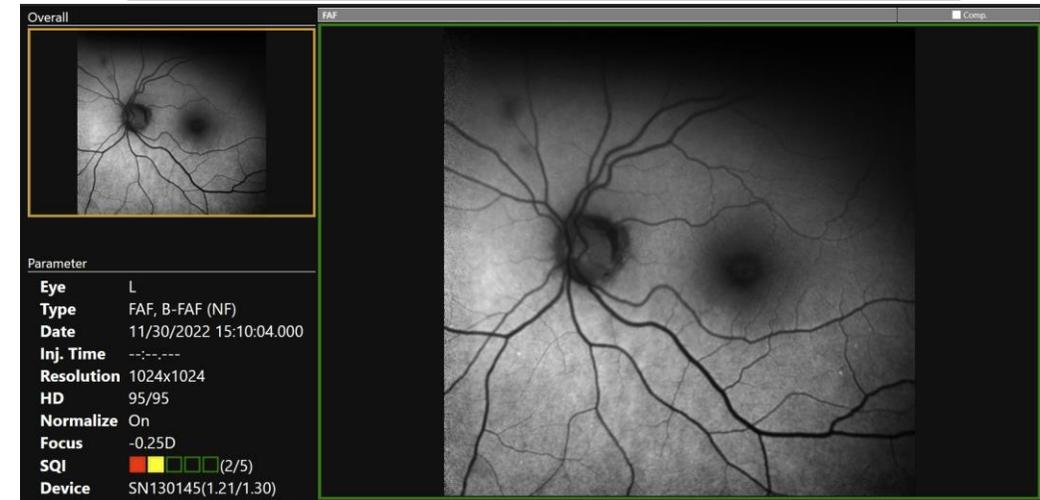
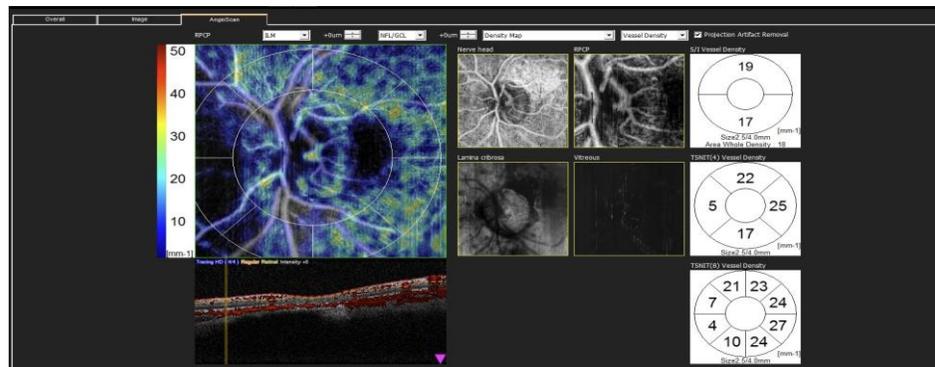
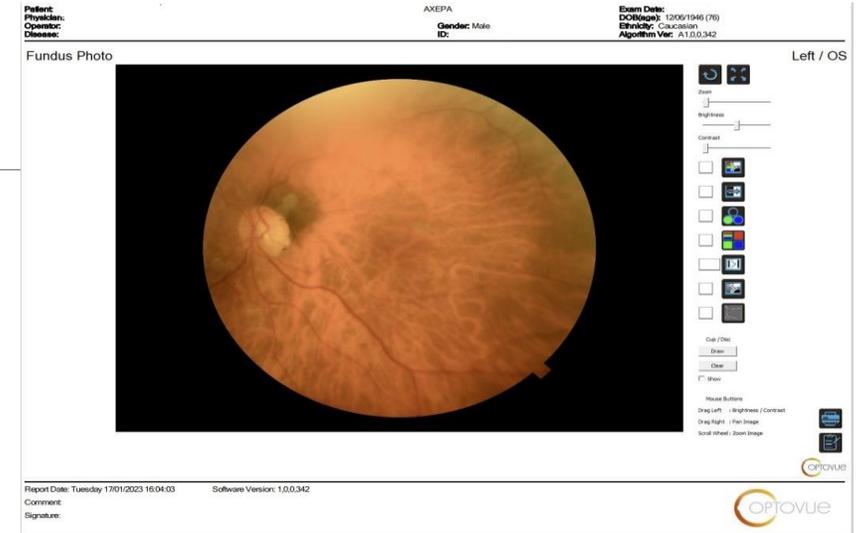
Fundoscopy:

- Incidentally a light brown lesion adjacent to the optic nerve was revealed with elevated and feathery margins
- Pigmentation also started to emerge onto the optic nerve head superotemporally.
- The lesion was about 1 disc-area in size involving the adjacent choroid as well.
- Lipofuscin deposition, retinal hemorrhages, retinal edema and subretinal fluid were absent.
- No other retinal lesions or ocular melanocytosis were found.

Autofluorescence: hypoautofluorescence

Angio oct:

- Hyper-reflectance of melanocytoma at the level of outer retinal plexus.
- honeycomb appearance.
- well demarcated borders.



Optic disc melanocytoma and its differential diagnosis

Melanocytoma of the optic disc is an ophthalmic tumor that arises from melanocytes.

Although benign in nature, it has a malignant potential (1-2%)→ therefore should be annually reviewed with confirmatory tests.

The ophthalmologist should be aware that vascular complications such as BRVO, CRVO, and CNV can arise from melanocytoma and should as well be monitored annually.

DIFFERENTIAL DIAGNOSIS

Choroidal melanomas tend to be lighter in color compared to optic nerve melanocytomas and may have associated subretinal fluid or overlying lipofuscin, which are not seen in ONM.

Choroidal melanomas present with “shaggy” photoreceptors on the OCT due to the subretinal fluid that typically accompanies choroidal melanomas but not optic nerve melanocytoma.

Choroidal melanomas present with abnormal retinal vasculature on the tumor surface and in the peripapillary region on the OCT angiography

Metastatic melanomas often present clinically as unilateral or bilateral optic nerve edema due to diffuse infiltration of the optic nerve, and a distinct darkly pigmented lesion is not observed.

Metastatic optic nerve melanomas patients typically complain of acute pain, reduced vision and diplopia, unlike to patients with optic nerve melanocytomas that remain asymptomatic

Choroidal metastases display RPE abnormalities and compression of the choriocapillaris on the OCT.

Choroidal naevus is a flat, or minimally elevated choroidal lesion that lies outside the disc and *does not* overlie the disk.