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Fortuitously Discovered Optic Nerve Tumor: A Case Report

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Authors' contributions

This work was carried out in collaboration among all authors. Author BS designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Authors BM and BH managed the analyses of the study. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Papillary melanocytoma is a pigmented tumor of the optic nerve, benign, rare, and often asymptomatic. We report the case of a 28-year-old man, who presents a unilateral papillary melanocytoma, discovered fortuitously, during an ophthalmological consultation for optical correction. We performed an ocular ultrasound confirmed the diagnosis, and magnetic resonance imaging did not reveal any retrobulbar extension. Our patient was monitored for 24 months, without evolution of his tumor.

Keywords: Melanocytoma; Optic nerve; a benign tumor; malignant transformation; optical coherence tomography; B-scan ultrasonography.

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1. INTRODUCTION

Tumors of the papilla are very rare with a female predominance [1].

Papillary melanocytoma is a benign hyperpigmented lesion that develops from dendritic uveal melanocytes present within the sieve plate [2]. It is rarely symptomatic, but a decrease in visual acuity can occur, secondarily to venous obstruction, compressive optic neuropathy or during melanocytic glaucoma. The risk factors for growth have been detected are: increased tumor thickness, intrinsic vascularization, and dome shape [3].

Papillary melanocytoma, is a benign tumor with a progressive evolution, but which can become malignant with time and requires prolonged monitoring [4].

We present the case of a unilateral papillary melanocytoma in a 28-year-old young man, discovered incidentally, monitored for 24 months.

2. CASE PRESENTATION

We report the case of a 28-years-old man, with no specific medical history, who presented for an ophthalmology consultation to obtain a driver's license.

The visual acuity was 10/10 in both eyes. Examination of the anterior segment was normal, with an intraocular pressureof17 mmHg in the right eye and 15 mmHg in the left eye.

The fundus examination found a prominent unilateral (right eye) hyperpigmented lesion that occupies the upper half of the papilla and encroaching on the retina (Fig. 1).

B-scan ultrasonography revealed a small dome-shaped lesion arising from the optic disc with no orbital shadowing (Fig. 2).

A papillary OCT image showed an elevated optic nerve with a hyper-reflective point in the lesion and an optical shadowing behind (Fig. 3).

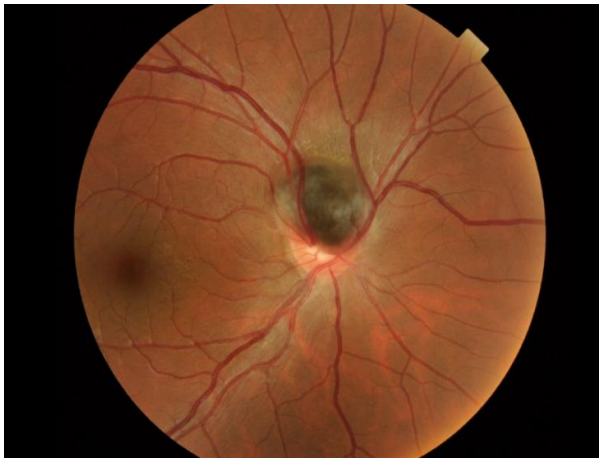

Fig. 1. Retinography of papillary melanocytoma (Right eye)

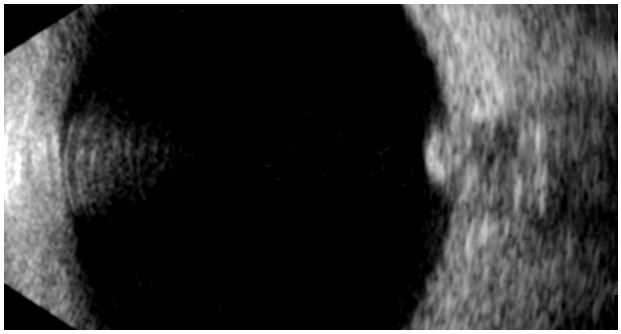

Fig. 2. Image of B-scan ultrasonography revealed a small dome-shaped lesion arising from the optic disc

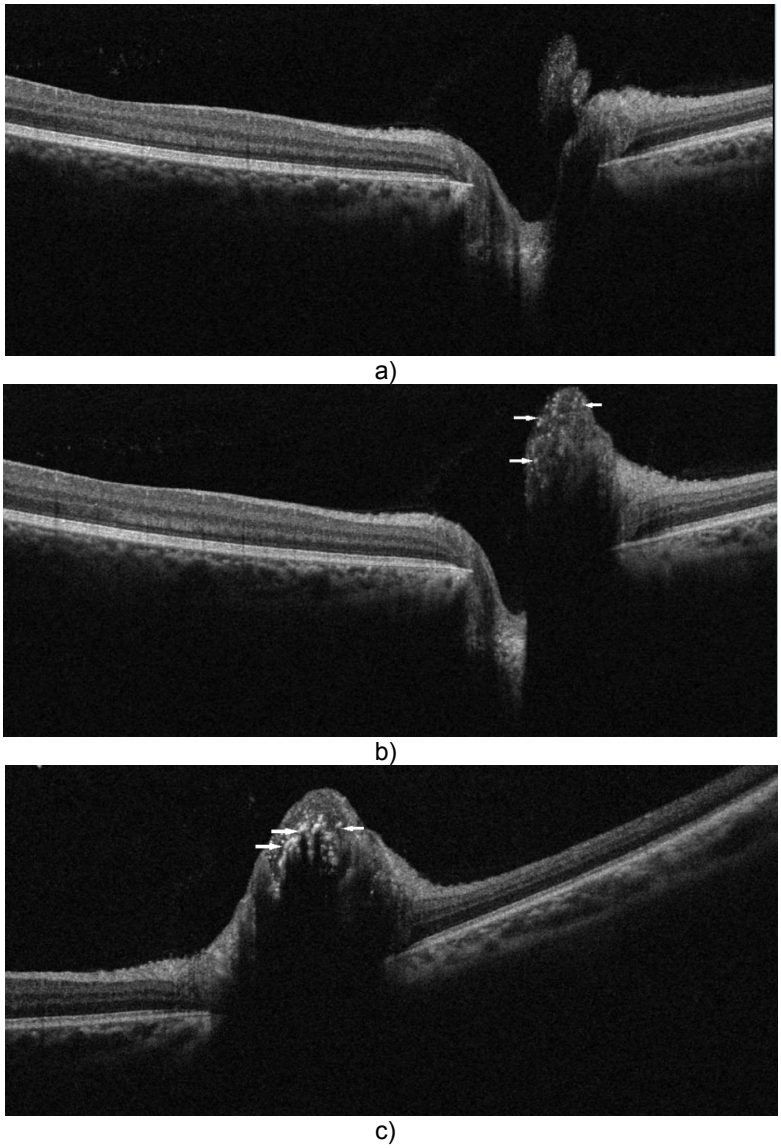

Fig. 3. OCT image showing scattered hyper reflective dots within the mass

The clinical and paraclinical aspects were both in favor of papillary melanocytoma. Magnetic resonance imaging did not reveal any retrobulbar extension.

After 24 months, visual acuity was still10/10 with a relatively stationary lesion.

3. DISCUSSION

Papillary melanocytoma, a rare tumor, often found in the African race, with a female predominance (62%). The average age of diagnosis is 50 years, a discovery at a very young age remains exceptional, the case of our patient [5].

The various studies found in the literature are in favor of the acquired origin and not congenital [6,7].

In most cases, the clinical appearance is sufficiently characteristic for a diagnosis [5]. The tumor is black, with filamentous edges secondary to infiltration of the lesion between the retinal nerve fibers. It is most often located in all or part of the head of the optic nerve, usually located eccentric and on the temporal side [8]. The tumor

can be flat or protruding with an average elevation of 4 to 10 mm in diameter [9].

B ultrasound and magnetic resonance imaging are of little help in the positive or differential diagnosis for melanoma [10]. Optical coherence tomography, reveals, a hyper-reflective point in the lesion and an optical shadowing behind (Fig. 3).

OCT-A, a new non-invasive imaging technique of retinal mivrovascularization. It helps in the differential diagnosis of papillary melanocytomas and in the follow-up of patients [2].

Melanocytomas can be also see nin the iris, the ciliary body and the choroid [5].

The possibility of tumor growth and malignant transformation, admittedly extremely rare, justify clinical monitoring and annual retinographic.

4. CONCLUSION

Histological studies of the globes have classified melanocytomas as benign tumors. Rare tumors, rarely responsible for reduced visual acuity, but require close monitoring.

CONSENT

All authors declare that 'written informed consent was obtained from the patient (or other approved parties) for publication of this case report and accompanying images.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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