A 46 year old Caucasian male was referred for assessment of a lesion in his left eye. He is myopic but has no other significant ocular history and reports good general health. Visual acuity in this eye is 6/6 with a low myopic correction. His right eye was unremarkable. What is your diagnosis?
ANSWER

Astrocytic hamartoma.

This patient has a raised white-yellow lesion with a pigmented border, located supero-temporally, adjacent to a choroidal naevus 2-3 disc diameters in size. OCT scans indicate the raised lesion is intra-retinal with shadowing on OCT. These findings suggest a diagnosis of astrocytic hamartoma.

An astrocytic hamartoma is a benign tumour originating from the retinal nerve fibre layer which can involve most layers of the retina. These growths specifically involve the enlargement and proliferation of astrocytes, which are supportive glial cells. They can present as an elevated, opaque, white nodule or as a flat and semi-translucent lesion with undefined margins.

These lesions may be calcified or non-calcified. It is thought that the nodular appearance of the lesion eventually progresses to a mulberry appearance, which indicates increased calcification.

Isolated, unilateral astrocytic hamartomas found in healthy individuals usually occur spontaneously. These lesions do not commonly progress or result in any complications. They are usually not associated with any other ocular findings and do not require any treatment. Multiple, bilateral or larger-sized retinal astrocytic hamartomas may be systemically associated with neurocutaneous syndromes such as tuberous sclerosis and neurofibromatosis.

Rarely, astrocytic hamartomas can grow aggressively. This can result in exudative retinal detachments. In some cases, surgical interventions, radiation therapy or enucleation may be necessary.

*Despite the isolated single nature of the astrocytic hamartoma, given that this is a rare condition and there are potential systemic associations, referral to a retinal specialist for confirmation of diagnosis and management is recommended.*