

In our case, the patient had a previous localized retinal detachment and vitreous hemorrhage in 1 eye but was stable at the time of surgery. In the fellow eye, visual acuity had progressively declined without complicating peripheral factors before surgical intervention. We found that PPV with ILM peeling resulted in a substantial improvement in visual acuity, which remained stable at over 2 years of follow-up in the right eye, and 9 months of follow-up in the left eye. This case adds to the limited body of literature that suggests that early surgical intervention, before vision-threatening complications of XLRS, may result in successful anatomic and functional outcomes. Further large-scale, prospective studies may better elucidate the role of vitrectomy in uncomplicated XLRS.

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Bilateral extraocular muscles metastases from a choroidal melanoma

A 59-year-old female presented with right eye choroidal melanoma of 9 × 7 mm basal dimensions and 3.1-mm thickness (Fig. 1A). A complete work-up detected no evidence of systemic metastases. Her melanoma was classified as T1 N0 M0 tumour, categorized as stage I, based on the 7th edition of TNM cancer staging manual of the American Joint Committee on Cancer. The choroidal melanoma was treated with iodine 125 plaque brachytherapy that ultimately controlled the tumour locally. Two years after brachytherapy, a mild elevation of her liver transaminases was noticed. Abdominal computed tomography (CT) revealed 4 suspicious hepatic lesions (Fig. 1B), which underwent biopsy and were pathologically identified as metastatic melanoma. Full-body CT imaging showed no evidence of extrahepatic metastases. The patient was therefore enrolled in a Phase I clinical trial of concurrent treatment with oral sorafenib 200 mg twice daily, an inhibitor of multiple tyrosine protein kinases, and liver stereotactic irradiation of 42 Gy was delivered in 6 fractions over 2 weeks. The metastatic disease was controlled for 2 years, until she experienced development of new hepatic metastases, which were successfully treated with percutaneous radiofrequency ablation. No further hepatic metastases were detected for the following 18 months. One week before her 6th monthly ophthalmic follow-up, she underwent a biopsy of 1 of 3 suspicious breast lesions that were discovered on

routine mammography. Histopathology results of the breast biopsy were not available when she presented with bilateral moderate swelling of the eyelids, with minimal nonpainful protrusion of the left eye that she noticed a few weeks earlier. On examination, she manifested with bilateral conjunctival hyperemia, right exotropia, bilateral asymmetric proptosis, and limitation of ocular motility in left gaze. The findings simulated thyroid orbitopathy (Fig. 2A). Her thyroid function tests were within normal limits, but the orbital CT scan revealed enlargement of the right medial and left medial and lateral recti muscles with tendon sparing in both orbits. Unlike the homogeneous muscle belly thickening in thyroid orbital myopathy, the muscles showed multiple localized nonuniform thickening in some sections (Fig. 2B). Moreover, brain CT images showed 2 hyporeflexive lesions suggestive of cerebral metastasis. Histopathology results of the breast biopsy eventually disclosed melanoma metastases. Therefore, her atypical extraocular muscle enlargement was diagnosed as melanoma metastasis to the extraocular muscles as a manifestation of her systemic melanoma metastases. The brain and the orbits were subsequently treated with radiotherapy of 20 Gy in 5 fractions, which significantly reduced proptosis 9 weeks later. However, because of the widespread metastatic disease, the patient was submitted to palliative care.

The primary location of uveal melanoma metastasis was reported to be only hepatic in 80% of cases, both hepatic and extrahepatic in 12%, and only extrahepatic in 8%.¹ Extrahepatic uveal melanoma metastasis can involve

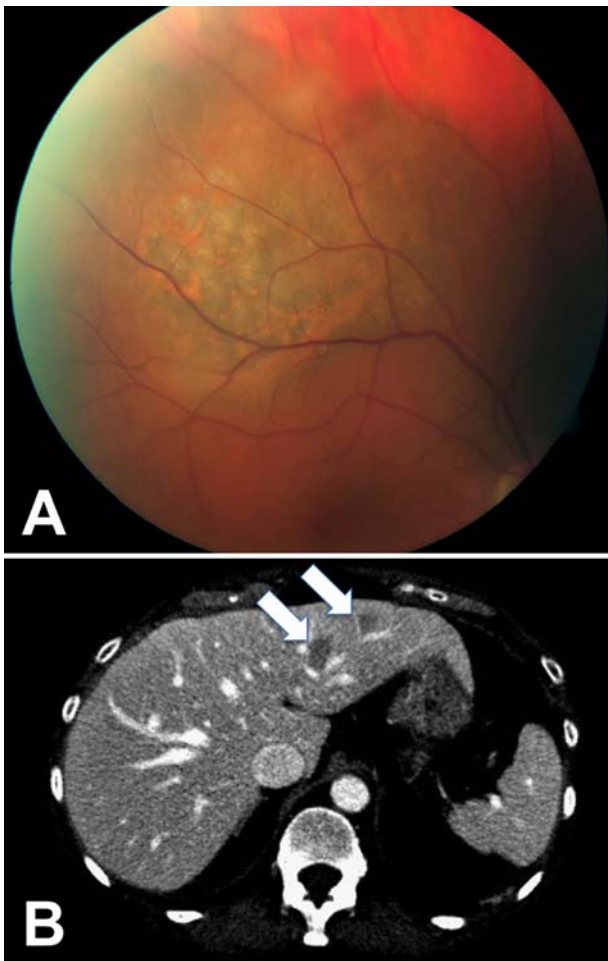


Fig. 1—A, Right eye fundus photograph shows choroidal melanoma classified as T1 N0 M0 tumour. B, Abdominal computed tomography scan shows 2 hepatic lesions that were proved on biopsy to be metastatic melanoma.

the lung, bone, subcutaneous tissues, lymph nodes, brain, adrenal gland, stomach, and spleen.^{2,3} The median survival time after liver metastasis is typically less than a year, but the patients in whom metastases were confined to extrahepatic locations have demonstrated longer median survival times of 19 to 28 months.^{3,4} In this patient, despite the favourable survival prognosis at initial presentation, being stage I according to the current TNM staging, with 88% predicted survival rate at 10 years, she experienced development of hepatic metastases 2 years after brachytherapy. Nevertheless, she lived for 4 years after the first diagnosis of hepatic metastasis with treatments targeting the liver lesions. It is uncertain whether the treatment of liver metastasis in her case could have favourably impacted survival, because the current evidence for treatment efficacy in metastatic uveal melanoma is statistically unsubstantiated and may be subject to lead-time bias.⁵ Surviving hepatic metastasis may have provided time for her melanoma metastases to reemerge later in unusual locations. Although 3 previous reports described bilateral extraocular muscles metastases from

nonuveal melanoma,^{6–8} we are aware of only a single report of a patient who developed bilateral melanoma metastases of the extraocular muscles, 8 years after enucleation for a ciliochoroidal melanoma.⁹ Interestingly, similar to our patient, some reports described the clinical presentation to mimic thyroid orbitopathy, and the imaging showed selective enlargement of the medial and lateral recti muscles.^{7–9} Our diagnosis was based on the atypical extraocular muscle enlargement in the context of melanoma metastatic disease. This unique case highlights the possibility of recurrence of uveal melanoma metastases in unusual locations in survivors of hepatic metastasis. Occurrence of manifestations similar to thyroid orbitopathy in a patient with a history of choroidal melanoma should spur one to consider

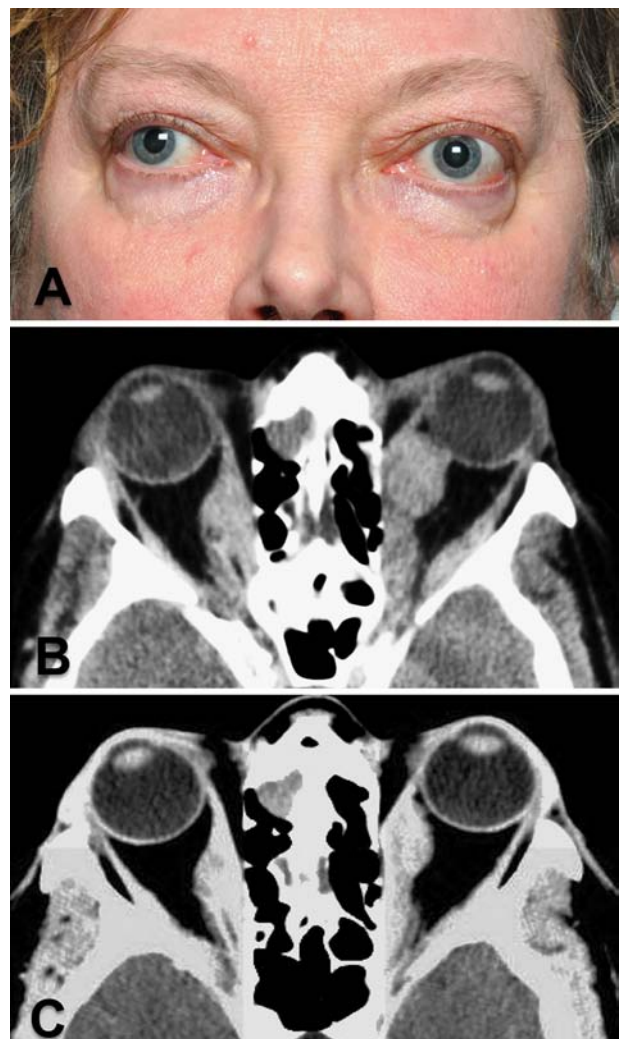


Fig. 2—A, External photograph shows bilateral moderate eyelid swelling, bilateral asymmetric proptosis, right eye exotropia, and conjunctival hyperemia. B, Orbital computed tomography scan shows bilateral irregular enlargement of the right medial and left medial and lateral recti muscle bellies with tendon sparing. C, Reduction of the muscles enlargement after 9 weeks of orbital irradiation.

extraocular muscle involvement with melanoma metastases.

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An illustrative case that demonstrates the importance of neuroimaging in midbrain corectopia

Corectopia is the displacement of 1 or both pupils from its centre and is commonly deviated nasally, as well as either superiorly or inferiorly.¹ The cause of corectopia can be congenital or acquired.¹ The latter is usually associated with midbrain lesions and coma, and poor prognosis is almost universal.²⁻⁴ In this article, we present a case of bilateral corectopia in a patient with a dural arteriovenous (AV) fistula that results in a prominent basal vein of Rosenthal impinging on the midbrain.

A 37-year-old male presented to our neuro-ophthalmology clinic with complaints of light sensitivity and large pupils bilaterally for 6 months. A year ago, he experienced pulsatile tinnitus and later began misspelling words on the computer.

On examination, corrected visual acuity (VA) of the right and left eyes were 20/20 -1 and 20/20, respectively. Color vision and brightness sense were normal. Pupils revealed anisocoria, more significant in the bright (OD 5 mm, OS 7 mm) than in the dark (OD 6 mm, OS 7 mm). Pupillary reaction was sluggish. Relative afferent pupillary defect was absent. Slit-lamp examination revealed corectopia in both pupils, some peaking observed at the 8-o'clock position of the right pupil and both 4- and 8-o'clock region of the left pupil. Slight vermiform movements of both pupils were present, worse in the left than the right eye, and patellar reflexes were modestly decreased bilaterally. These features were suggestive of Adie's pupil, so cholinergic supersensitivity testing for Adie's pupil was performed with diluted (0.1%) pilocarpine. No pupillary changes were noted even after the second application of 0.1% pilocarpine after 40 minutes (Fig. 1).

The presence of corectopia warranted exclusion of any mesencephalic lesion. Magnetic resonance imaging of the brain was requested and revealed some asymmetric



Fig. 1—Cholinergic supersensitivity test with 0.1% pilocarpine. A, Pupils before administration of 0.1% pilocarpine. B, No change in pupils 20 minutes after administration of 1 drop 0.1% pilocarpine. C, No change in pupils 20 minutes after the second drop of 0.1% pilocarpine (40 minutes after pre-pilocarpine).