Bilateral Choroidal Metastasis as the Presenting Sign of Small Cell Lung Carcinoma

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A 56-year-old African American man with recent diagnosis of cirrhosis with portal hypertension but no prior ocular disease presented with a 3-week history of progressive vision loss in both eyes. Visual acuity was hand motions in both eyes. Fundus examination of the right eye revealed a large inferior retinal detachment with a solid subretinal mass in the superior macula (Figure 1). Similar findings were seen in the left eye.

The clinical impression was metastatic carcinoma versus lymphoma, and the patient was referred urgently to an oncologist for a systemic evaluation. Before that evaluation, the patient was hospitalized for acute pneumonia. During the workup, a computed tomography scan showed lesions in the liver and left lung along with a large pleural effusion. The patient’s health rapidly declined, and he died before establishing a diagnosis. An autopsy revealed extensive hilar lung involvement by small cell carcinoma with widespread metastasis. Postmortem examination of the eyes showed moderately pigmented masses in the choroid posteriorly (Figure 2) with pathologic confirmation of the metastatic small cell carcinoma.

Although about 30% of all symptomatic choroidal metastases occur in the setting of lung cancer, visual symptoms from small cell metastasis are rare.1,2 One previously reported case described a patient with treated small cell carcinoma who was evaluated for blurred vision and found to have a mass in the right eye. That lesion responded to additional chemotherapy including topotecan and cisplatin along with radiotherapy, although the patient died within 6 months of the ocular findings.3 Compared with the previous case reports,4 this patient is unique in that he had bilateral vision loss and bilateral choroidal metastases as the initial manifestation of small cell carcinoma of the lung.

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References

FIGURE 1.
A large subretinal mass (outlined by arrowheads) involves the superior macula of the right eye. The retinal vessels overlying the mass are out of focus.
FIGURE 2.
Autopsy specimen of the right eye demonstrates the choroidal mass (outlined by arrowheads).