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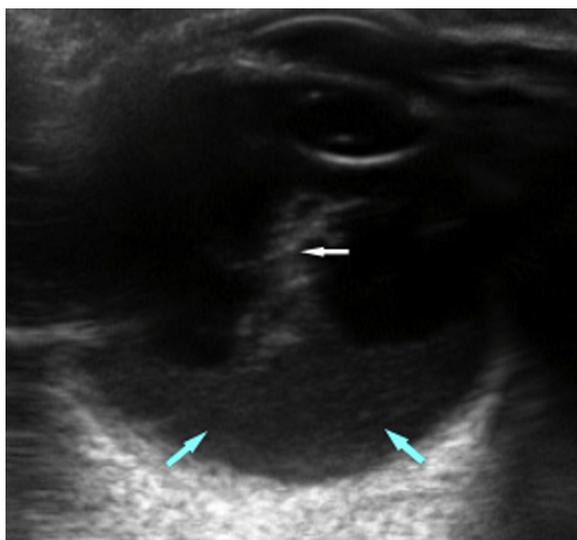
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Figure. Axial-transverse ultrasonography of the eye, with the patient supine, showing blood layered in the posterior chamber (blue arrows) and extending into the center of the globe (white arrow), consistent with an acute vitreous hemorrhage.

[Ann Emerg Med. 2019;74:e117-e118.]

A 66-year-old man with a history of hypertension presented to the emergency department (ED), complaining of sudden, painless vision loss in his left eye, occurring 6 hours earlier. His visual acuity was 20/20 with the right eye and detection of hand motion only with the left. On examination, his left fundus could not be visualized on direct ophthalmoscopy because of a reddish haze in the posterior chamber. Bedside ocular ultrasonography using a high-frequency linear probe was performed in the ED (Figure).

*For the diagnosis and teaching points, see page e118.
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IMAGES IN EMERGENCY MEDICINE

*(continued from p. e117)***DIAGNOSIS:**

Vitreous hemorrhage. Bleeding in the vitreous humor may occur from injury to the retina and its associated vasculature. Common causes include proliferative diabetic retinopathy, posterior vitreous detachment with or without retinal tear or detachment, and ocular trauma.¹ Patients typically complain of painless vision loss in the involved eye. As with our patient, there is often difficulty visualizing the fundus on direct ophthalmoscopy because of blood in the vitreous humor.

Bedside ultrasonography is useful in evaluating intraocular pathology, especially when fundoscopic examination is difficult. Bedside ED ultrasonography has a sensitivity of 81.9% and specificity of 82.3% for the diagnosis of vitreous hemorrhage.² Vitreous hemorrhage on ultrasonography appears as layers of medium to low echogenicity in the posterior aspect of the globe when the patient is supine.³ The layers have a semimobile appearance with eye movements.⁴ Our patient was subsequently found to have a posterior vitreous detachment with retinal tear and was scheduled to have vitrectomy and laser repair of the retinal tear.

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