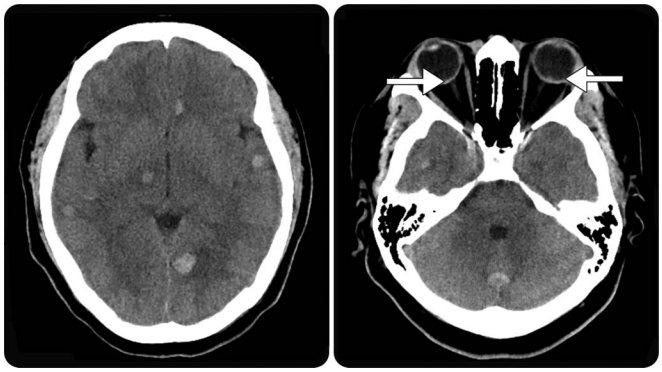
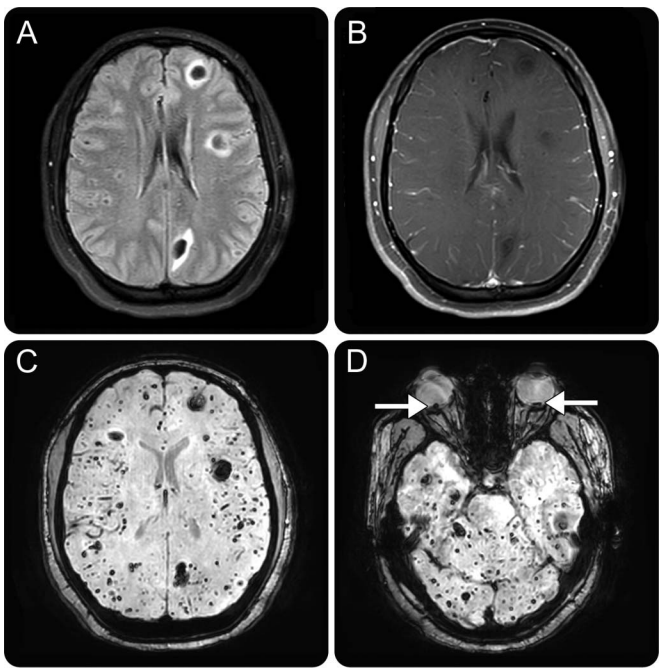
Retinal and intracranial hemorrhage in acute leukemic disseminated intravascular coagulation

Figure 1 Leukemic retinal and intracranial hemorrhage on CT



Axial CT images show multiple acute supratentorial and infratentorial intraparenchymal hematomas, as well as hemorrhage within the posterior globes bilaterally (arrows).

Figure 2 Leukemic retinal and intracranial hemorrhage on MRI



Axial T2 fluid-attenuated inversion recovery (A), postcontrast T1 (B), and susceptibility-weighted images (C, D) obtained shortly after the CT show numerous multifocal cortical and subcortical acute intraparenchymal hematomas with mild vasogenic edema, but no associated enhancement, as well as bilateral retinal hemorrhages (arrows).

A 22-year-old woman with an unremarkable medical history presented with recent fever, epistaxis, ecchymosis, altered mental status, and blurry vision. Leukocyte count was 147,000, platelet count was 23, and blood smear was consistent with acute promyelocytic leukemia in the setting of disseminated intravascular coagulation. Ophthalmoscopy demonstrated retinal hemorrhages consistent with leukemic retinopathy. CT (figure 1)

and MRI (figure 2) of the head demonstrated characteristic numerous multifocal cortical and subcortical hemorrhages in addition to the retinal hemorrhages, which were particularly striking on the susceptibility-weighted imaging.[1] Retinopathy at presentation of adult leukemia portends a poor prognosis.[2]

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