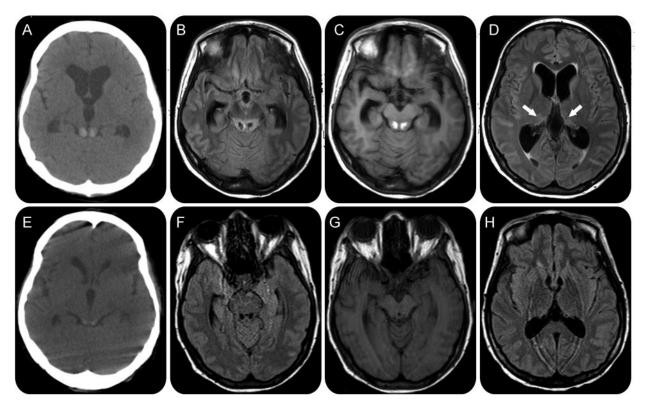
## Hemorrhagic Wernicke encephalopathy in a patient with liver transplantation

Figure A 40-year-old woman with Wernicke encephalopathy



Initial CT (A), fluid-attenuated inversion recovery (FLAIR) (B), and T1-weighted MRI (C) at the level of midbrain show early subacute stage hemorrhage in bilateral colliculi. FLAIR at the level of basal ganglia (D) shows symmetric signal increase in medial thalami (arrows). Note hydrocephalus in all initial images. Follow-up CT after 20 days (E) shows resolving hemorrhage in colliculi. Fifteen days later, MRI (F-H) shows resolution of hemorrhage, hemosiderin deposition in colliculi, and reversibility of thalamic signal change and hydrocephalus.

A 40-year-old woman who received a liver transplantation developed nystagmus, downward gaze palsy of her right eye, and gradual mental deterioration. CT and MRI (figure) showed signal change in medial thalami and hemorrhage in the bilateral inferior colliculi, suggesting Wernicke encephalopathy. Swelling around the aqueduct resulted in hydrocephalus. After beginning thiamine supplementation (100 mg/day), her consciousness began to return. Follow-up MRI revealed partially resolved hemorrhages and improved hydrocephalus. Gross hemorrhage is an uncommon finding in Wernicke encephalopathy, although microscopic hemorrhage is well-documented in pathology textbooks. Typical findings include signal change in mamillary bodies, medial thalami, tectal plate, and periaqueductal gray matter.

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