

Wernicke encephalopathy

SWI detects petechial hemorrhages in mammillary bodies in vivo

Figure 1 Susceptibility-weighted imaging (SWI) detects microbleeds in the mammillary bodies as a hallmark of Wernicke encephalopathy (WE)



Axial SWI of an alcoholic patient with ataxia, nystagmus, and disorientation due to acute WE shows 2 dark spots in the mammillary bodies, indicating microbleeds in this brain region.

In 1881, Carl Wernicke¹ described a “polioencephalopathia haemorrhagica superior” in 3 alcoholic patients with gray matter hemorrhages in the mammillary bodies.

Contrast enhancement in the mammillary bodies, an important imaging sign of Wernicke encephalopathy (WE), suggests a disrupted blood–brain barrier, which may be the cause for the microbleeds.

In a 58-year-old man with acute WE, brain magnetic resonance susceptibility-weighted imaging (SWI) revealed blood deposits in mammillary bodies, which were not evident on standard T2* images (figures 1 and 2). SWI may be a preferred sequence to detect the pathologic hallmark of WE in vivo and extends the MRI characteristics of this treatable condition.²

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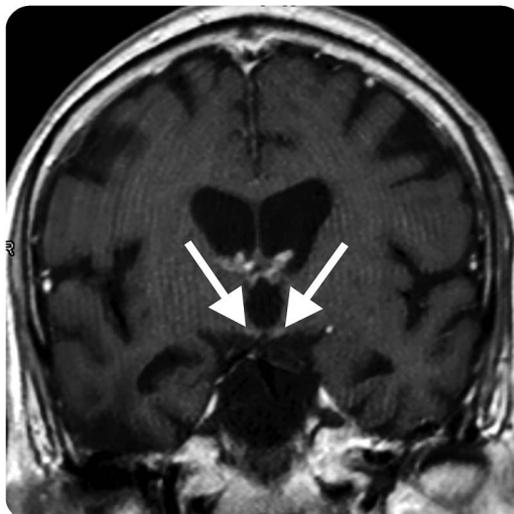
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Figure 2 Typical contrast enhancement in the in the mammillary bodies due to Wernicke encephalopathy



Coronal T1-weighted image after application of contrast agent shows a faint enhancement in the mammillary bodies.

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