Teaching Neuro*Images*: Face of the giant panda and her cub

MRI correlates of Wilson disease

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A 16-year-old girl presented with abnormal behavior and involuntary movements. Neurologic examination demonstrated Kayser-Fleischer rings, chorea, and dystonia. Serum ceruloplasmin and urine copper studies confirmed the diagnosis of Wilson disease. Brain MRI showed bilateral T2 hyperintensity involving putamen, thalami, and brainstem[1] (figure, A). The midbrain "panda sign" (figure, B) is due to high signal in the tegmentum, normal signals in the red nuclei and lateral portion of the pars reticulata of the substantia nigra, and hypointensity of the superior colliculus. Dorsal pontine signal abnormalities resemble the face of a panda cub[2] (figure, C).

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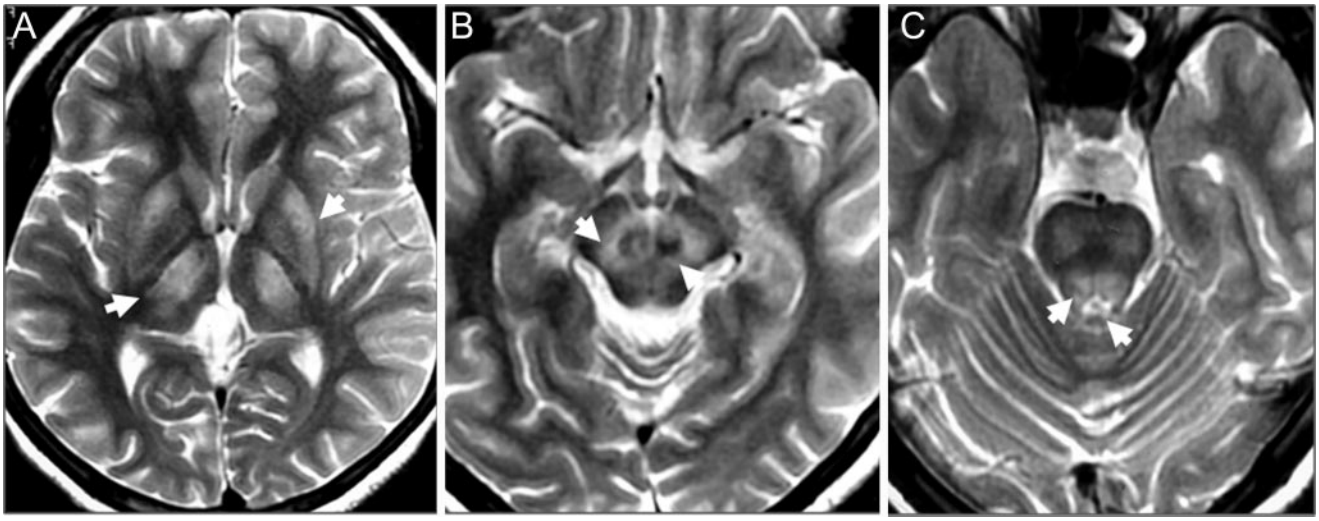
2. Jacobs DA, Markowitz CE, Liebeskind DS, Galetta SL. The double panda sign in Wilson's disease. Neurology 2003;61:969.

Figure Brain MRI



T2-weighted axial MRI demonstrates (A) symmetric hyperintense signals in the putamen, posterior internal capsule, and thalami (arrows), (B) "face of the giant panda" in midbrain with high signal in tegmentum and normal red nuclei (arrows), and (C) "face of the panda cub" in pons with hypointensity of central tegmental tracts with hyperintensity of aqueductal opening to fourth ventricle (arrows).

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