Double Panda Sign

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Figure 1: Midbrain face of giant panda sign.
Figure 2: Pons face of miniature panda relative hypointensity of central tegmental tracts and hyperintensity of aqueduct opening into fourth ventricle.

Clinical Image

Wilson disease (hepatolenticular degeneration) is an inherited autoimmune recessive disorder of copper metabolism due to mutations in \textit{ATP7B} gene on chromosome 13 with an incidence of 1 in 30000 live births. The majority of patients with Wilson disease are diagnosed between age of 5 and 35 years. MRI T2 weighted images shows double panda sign. Figure 1 shows midbrain face of giant panda sign, normal intensity of red nuclei and hyperintensity of tegmentum. Figure 2 shows pons face of miniature panda relative hypointensity of central tegmental tracts and hyperintensity of aqueduct opening into fourth ventricle. Neurological symptoms (ranging from 18\% to 73\%) of Wilson disease are dysarthria, tremors, Parkinsonism, dystonia, gait abnormalities etc. Nearly all (98\%) of patients with Wilson disease with neurologic manifestations have Kayser-Fleischer rings. Magnetic resonance imaging of brain reveals hyperintensities involving basal ganglia, thalamus and brainstem. Double panda sign refers to the combination of the face of giant panda and face of miniature panda seen on T2 weighted images of midbrain and pons respectively in Wilson disease.

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