

Dense Basilar Artery Sign

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ABSTRACT

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A 65-year-old man presented with acute loss of consciousness of two hours duration. Non-contrast CT scan of brain showed “dense basilar artery sign. Basilar artery thrombosis with posterior circulation was suspected and MRI brain with MR angiogram (MRA) was done. MRA showed absence of flow void in basilar artery (Figure 2) and MRI showed diffusion restriction in brainstem and cerebellum (Figure 3), confirming basilar artery thrombosis with posterior circulation stroke. Patient died of extensive brainstem infarct, five hours after admission.

Keywords: Dense basilar artery sign, Basilar artery thrombosis, Prognosis

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A 65-year-old man presented with acute loss of consciousness of two hours duration. He was on treatment for hypertension and dyslipidemia for the past five years. On admission he was comatose (E1M2V1), BP was 170/100 mmHg, pupils were sluggish reacting and oculocephalic reflex was impaired. Metabolic parameters were normal. Non-contrast CT scan of brain showed “dense basilar artery sign” (Figure 1). No parenchymal abnormalities were noted on CT brain. Basilar artery thrombosis with posterior circulation was suspected and MRI brain with MR angiogram (MRA) was done. MRA showed absence of flow void in basilar artery (Figure 2) and MRI showed diffusion restriction in brainstem and cerebellum (Figure 3), confirming basilar artery thrombosis with posterior circulation stroke. Patient died of extensive brainstem infarct, five hours after admission. Diagnosis of posterior circulation gets



Figure 1. Non contrast CT brain showing hyperdense basilar artery-dense basilar artery sign

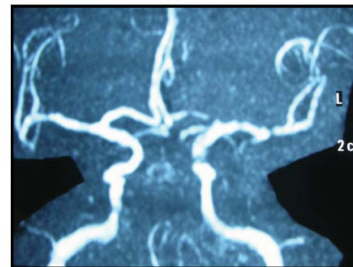


Figure 2. MRA showing absent flow void in basilar artery

delayed many a times, as the initial CT brain is normal. MRI brain also is not 100% sensitive and is not widely available.¹ So it is important to detect early CT signs of posterior circulation stroke. “Dense basilar artery” represents basilar artery thrombosis or embolism and is an early sign of basilar territory infarction.^{2,3} Prompt recognition of early CT signs can facilitate early thrombolysis and improved survival. Untreated, the dense basilar artery has a poor prognosis.³ Early initiation of intra-arterial thrombolysis in the presence of a dense basilar artery sign is associated with a higher likelihood of recanalization.⁴

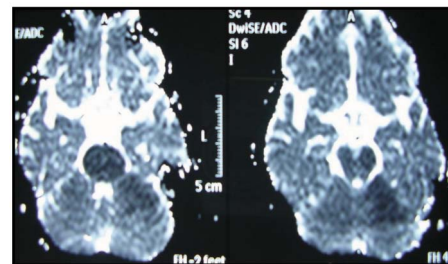


Figure 3. MRI (ADC map) showing restricted diffusion in brainstem and cerebellum, suggesting infarct.

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