

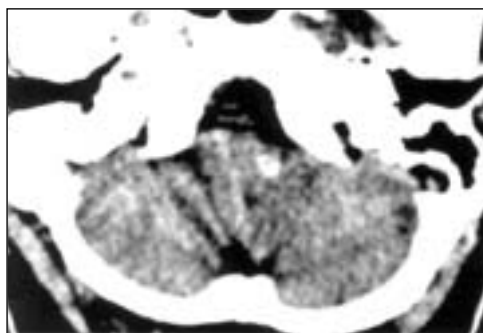
# Calcified vertebral artery and “dense basilar artery sign” in a patient with basilar territory infarction

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Diagnosis of posterior circulation stroke (PCS) may get delayed or missed in patients with atypical signs. Magnetic resonance imaging (MRI), considered to be superior to computerized tomography (CT) in PCS, too is not 100% sensitive, as 20% of patients with PCS may have a negative diffusion-weighted MRI at admission.<sup>[1]</sup> Moreover, MRI is not universally available and CT is often the initial imaging done. Therefore, it is important to detect findings in CT that are indicative of vertebrobasilar territory atherosclerosis/thrombosis for an early diagnosis.

A 75-year-old man presented with loss of consciousness of one-hour duration. Vital signs were normal. No focal neurological deficits were present. Biochemical tests were suggestive of diabetic ketoacidosis. CT scan of the brain was reported as normal. The patient worsened 12 hours later. Basilar territory infarction was suspected and a repeat CT scan showed extensive infarction involving the right thalamus, midbrain, pons and bilateral cerebellar hemispheres. The initial CT scan was reviewed and a calcified left vertebral artery (Figure 1) and “dense basilar artery sign” (Figure 2) were identified. These findings were in favor of basilar artery thrombosis sec-



**Figure 1:** Plain computerized tomography (CT) of brain showing a calcified vertebral artery on the left side



**Figure 2:** Plain CT of brain showing a dense basilar artery

ondary to an atherosclerotic process.

The problem of underdiagnosis of basilar artery thrombosis has been noted earlier.<sup>[2]</sup> Our case also highlights that the presence of vertebral artery calcification and “dense basilar artery sign” could be useful indicators for the presence of PCS. In a previous study, a high correlation was observed between vertebral artery calcification on CT and vertebral artery stenosis on cerebral angiography.<sup>[3]</sup> Similarly, “dense basilar artery” is thought to represent basilar artery thrombosis or embolism and an early sign suggestive of basilar territory infarction.<sup>[4]</sup>

## References

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