History
66 year old female with new onset leg weakness and dizziness

Diagnosis
PICA Infarction

Discussion
The posterior inferior cerebellar artery (PICA) arises from the distal vertebral artery just prior to the formation of the basilar artery. The PICA then courses posteriorly around the upper aspect of the medulla oblongata, passing between cranial nerves X and XI, over the inferior cerebellar peduncle to the undersurface of the cerebellum where it divides into two branches, with one anastamosing with branches of the anterior inferior cerebellar artery and the other with branches of the superior cerebellar artery. Loss of circulation in the PICA territory in particular can lead to lateral medullary syndrome or Wallenberg syndrome due to infarct in the dorsal lateral aspect of the medulla. The syndrome is diagnosed clinically by the loss of pain and temperature on the contralateral side of the body (due to involvement of the corticospinal tract) and ipsilateral side of the face (due to involvement of the spinal trigeminal nucleus and tract). Other symptoms and signs associated with PICA infarcts include dizziness and vomiting (due to vestibular nuclei involvement) and ipsilateral Horner's syndrome (due to involvement of sympathetic nervous system fibers in the medulla). Headache is also seen in up to 40% of patients with acute cerebellar infarcts.

Findings
CT-Initial examination is negative for acute intracranial process. Subsequently two days later, shows development of a wedged shaped area of decreased density medially and inferiorly in left cerebellum. Images from CT angiogram done on same patient one day after the second head CT shows patent right vertebral artery and occlusion and atherosclerotic calcification at origin of left vertebral artery.

Reference

Contributor
D J Mulligan, MD
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