Case of the month October 2012

59-year-old woman presents with acute confusion and vision changes (2-3 hours). No history of trauma. History of atrial fibrillation (on Coumadin).

An unenhanced CT of the Head was done.

- What are the imaging findings?
- What is the diagnosis?
Imaging Findings

- Hyperdense vessel sign (Basilar Artery).
- No loss of grey-white differentiation.
- No acute bleed.
- No mass/space-occupying lesion.
Diagnosis

• Acute Basilar Artery Infarct
On a repeat CT 6 hours later, we note loss of grey-white differentiation involving the left occipital lobe.
Discussion

- CT findings:
  - NECT –
    - dense basilar artery maybe seen
    - hypoattenuation and loss of gray-white differentiation in bilateral temporal & occipital lobes, midbrain, thalami and peduncles
  - CTA – occlusion, filling defect, dissection or stenosis of basilar artery
  - CT Perfusion – decreased CBF & CBF in affected region
Discussion

- MRI findings:
  - T1WI – lack of flow void in basilar artery, may see hyperintense signal within basilar artery
  - T2WI –
    - hyperintense signal in bilateral temporal and occipital lobes, thalami & midbrain
    - absent flow void in basilar artery
  - FLAIR – hyperintense signal in the above regions
  - DWI – diffusion restriction acutely
Discussion

• Presentation:
  • Dizziness, vertigo, ataxia, nystagmus, pupillary defect, visual changes, confusion/behavioural changes
  • “Locked-In Syndrome” – condition in which a patient is aware and awake but cannot move or communicate verbally due to complete paralysis of nearly all voluntary muscles except for the eyes.

• Treatment:
  • Thrombolysis or mechanical thrombectomy
  • The treatment window maybe extended given the poor potential outcome
References


• Case submitted by Abdullah Alabousi