



## Acute lacunar ischaemic stroke lesions on imaging

### Part A – General



# Acute lacunar infarcts: General appearance

Location: Lacunar infarcts are in the white matter or deep grey matter of the cerebral hemispheres or brainstem.

Infarcts in or involving the cortex are not lacunar infarcts.

Size: Varies with stage.

Acute lesions are larger than old lesions.

Max acute lesion size = 2cm diameter in axial plane.

Max old lesion size = 1.5cm diameter in axial plane.

Shape: Can be round, ovoid, or tubular.

If tubular, then the longest axis is in the feet-head direction.

Number: Single usually. Occasionally multiple.

If multiple, then more likely to be due to emboli especially if one of the acute lesions is in the cortex.

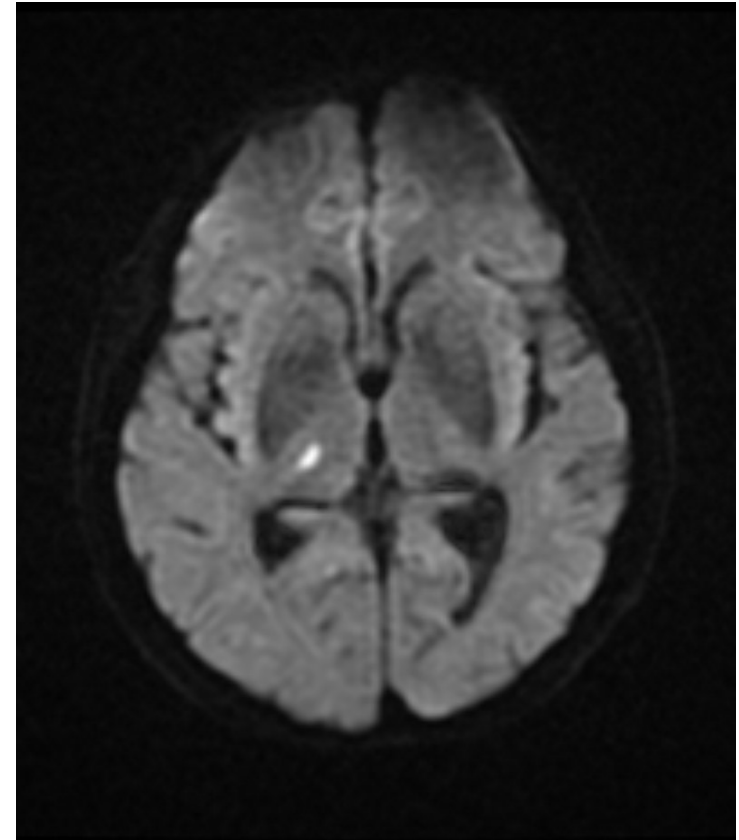
Brightness: Bright white on MRI diffusion (DWI), white on MRI FLAIR, T2, dark on MRI T1

Darker than normal grey or white matter on CT

# Acute lacunar infarcts: General features

Acute lacunar infarction:

- <2cm diameter axial plane,
- hypointense (dark) on CT (and MRI T1)
- hyperintense (white) on MRI DWI, FLAIR, T2
- in the territory of a perforating arteriole.
- Correlate with symptoms



A typical small, ovoid, acute lacunar infarct in the right thalamus