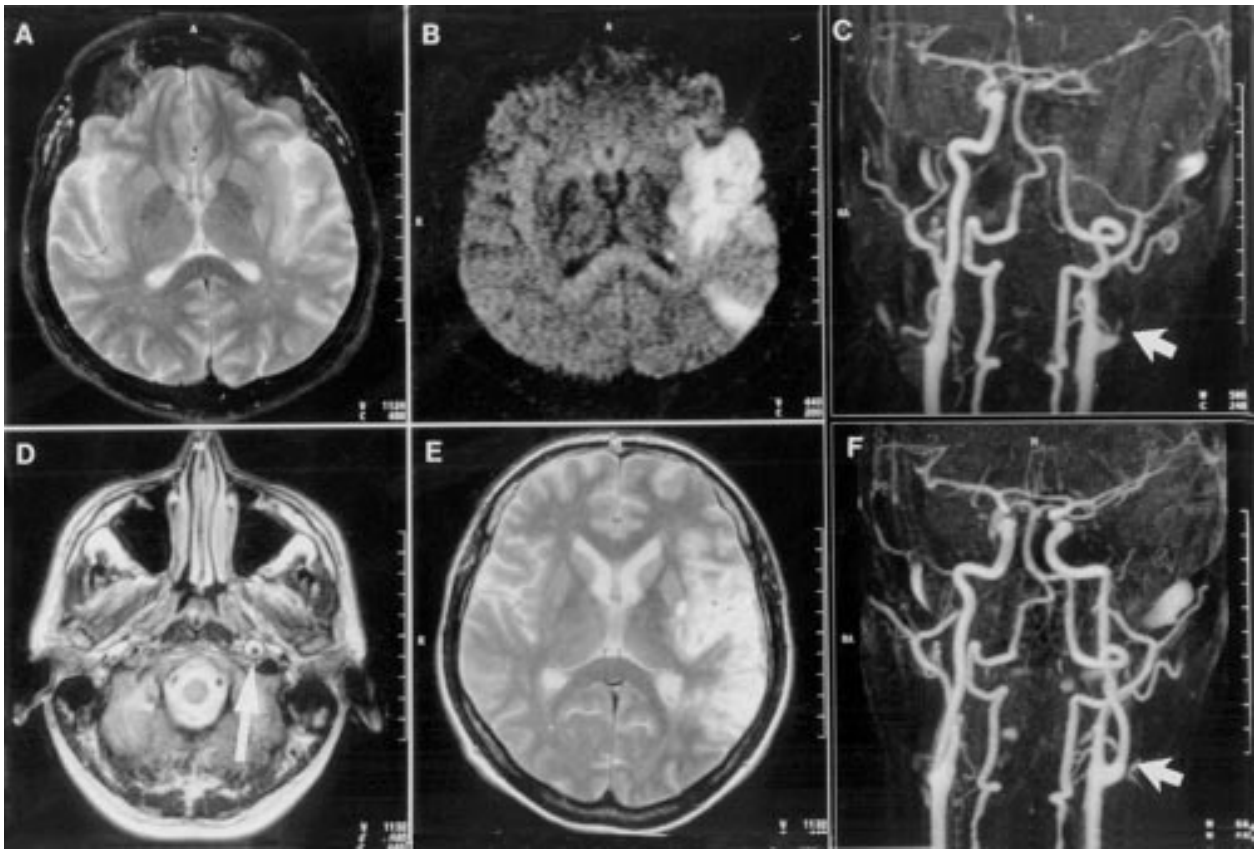
NEUROLOGICAL PICTURE

Cerebral infarction due to internal carotid artery dissection



A 42 year old man whithout prior cardiovascular or neurological history presented to the emergency room three hours after onset of right hemiplegia and global aphasia. Emergency MRI disclosed early signs of middle cerebral artery ischaemia (MCA) on T2 weighted (figure, A) and diffusion weighted (figure, B) images.[1] MR angiography using an ultrafast gadolinium contrast enhanced three dimensional technique with 30 s aquisition time (TR 5 ms/TE 2 ms) showed proximal occlusion (arrow) of the internal carotid artery (figure, C).[2] A haematoma of the vessel wall was demonstrated up to the intracranial internal carotid artery on T2 weighted transverse slices. A diagnosis of middle cerebral artery ischaemia due to internal carotid artery dissection was made and treated aggressively. Repeat MRI three weeks later showed an area of chronic infarction (figure, E). Despite recanalisation of the left internal carotid artery (figure, F) there was still haematoma surrounding the recanalised lumen on transverse T2 weighted slices (figure, D).

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1 Warach S, Gaa J, Siewert B, *et al*. Acute human stroke studied by whole brain echo planar diffusion-weighted MRI. *Ann Neurol* 1995;**37**:231–41.
2 Prince MR, Yucel EK, Kaufmann JA, *et al*. Contrast-enhanced MR angiography. *J Magn Resonan Imaging* 1993;**3**:877–81.