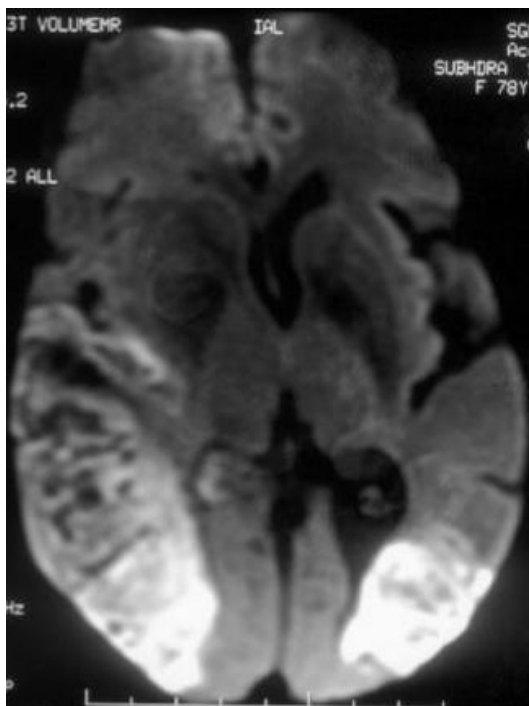
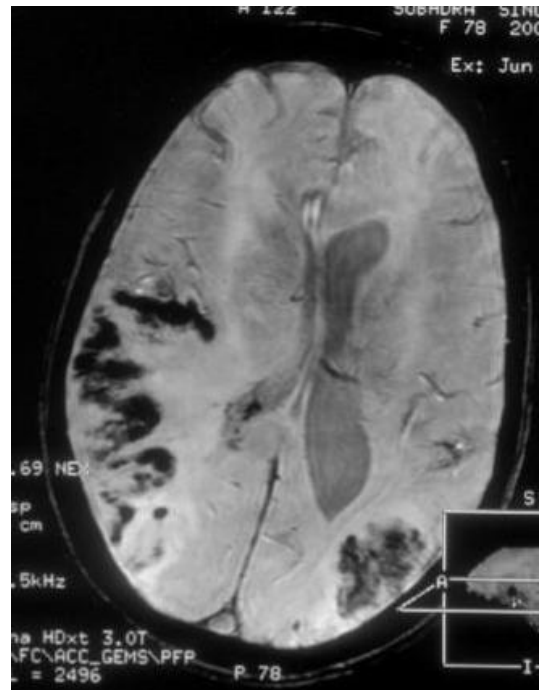


## Bilateral middle cerebral artery haemorrhagic infarcts presenting only as cortical blindness

A 70-year-old woman presented with sudden onset headache and vomiting followed by bilateral vision loss within the next 30 min while she was brushing in the morning. She did not have any seizures or focal deficit. On examination, she was found to be hypertensive with systolic blood pressure of 220 mm Hg and only perception of hand movement in bilateral eyes. Pupils were bilaterally 2 mm and reacting to light. Fundus examination showed grade 3 hypertensive retinopathy. Power in all four limbs was 5/5 at all joints. Sensory examination was not suggestive of any cortical sensory deficits. Cerebellar and extrapyramidal system examination revealed no abnormality. Aphasia testing was also normal. Visual evoked potentials by flashlight were normal. MRI of the brain revealed bilateral middle cerebral arterial (MCA) territory haemorrhagic infarcts with angiography showing blockage of inferior division of left MCA (figures 1–5). ECG revealed left ventricular hypertrophy that was confirmed on echocardiography. There was no evidence of atrial fibrillation. Her vision loss was attributed to the involvement of both temporal and parietal optic radiations in MCA territory. Doppler examination of the carotids showed multiple soft plaques along the entire length of bilateral internal carotid artery with increased intimal thickness. Hypertension leading to arterial sclerosis and thrombus formation was considered as the cause of stroke in this patient. She was started on dual antiplatelet, antihypertensives and supportive treatment for headache. She had complete

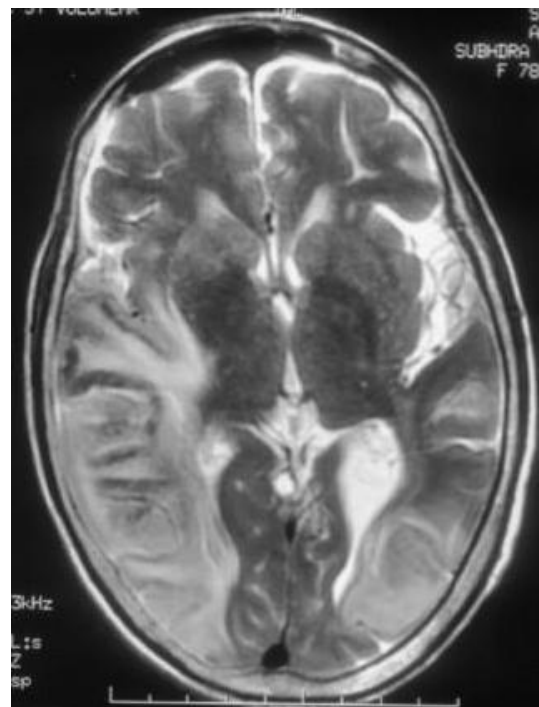


**Figure 1** Diffusion-weighted images showing diffusion restriction in right parieto-temporal and left temporal region.

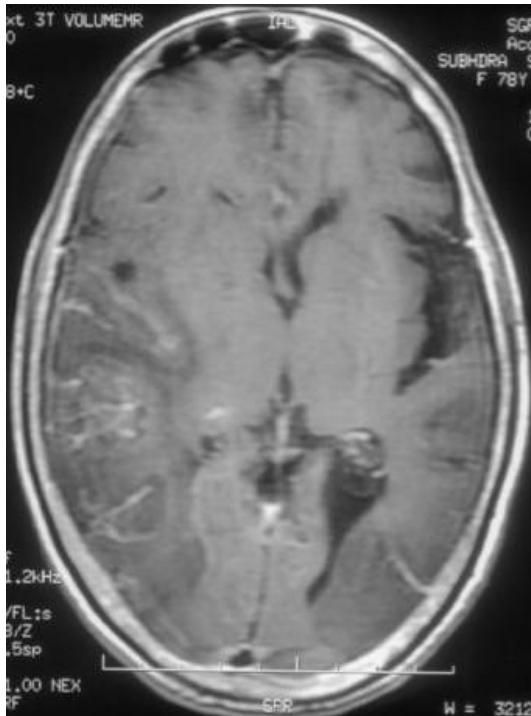


**Figure 2** Susceptibility-weighted images showing blooming in the areas of diffusion restriction.

recovery of vision in both eyes on follow-up at 3 months. Her Mini-Mental State Examination score was 29/30. She lost 1 point in drawing complex diagrams. On detailed neurological examination, she had left-sided hemineglect but there was no evidence of simultagnosia. Language examination did not reveal any abnormality. We could not do diffusion tensor imaging to look for optic radiation involvement in this patient due to



**Figure 3** T2-weighted images showing increased hyperintensity in right parieto-temporal and left temporal region suggestive of infarct with surrounding oedema.

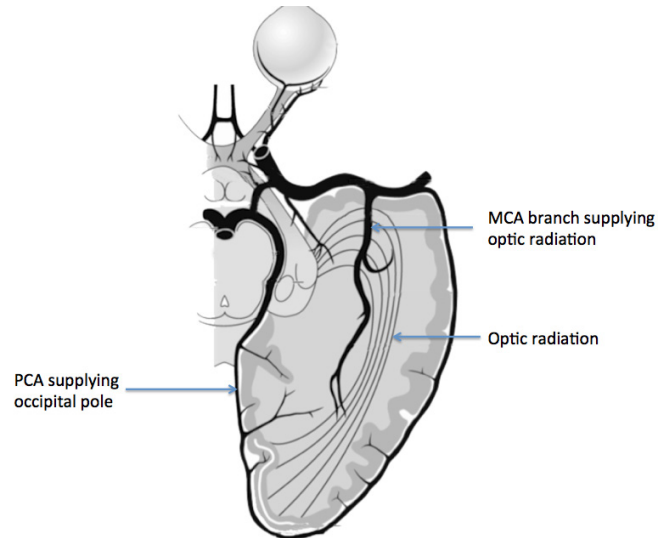


**Figure 4** Axial T1 contrast images showing contrast take-up in the area of infarct.

technical issues. This could have helped in understanding the precise injury and recovery pattern of optic radiations in MCA stroke. **Figure 6** is a diagram showing blood supply of optic



**Figure 5** MR angiography (MRA) images showing occlusion of inferior division of left middle cerebral artery.



**Figure 6** Diagram showing blood supply of optic radiation. MCA, middle cerebral artery; PCA, posterior cerebral artery.

radiations. This is the first case in literature illustrating parieto-temporal infarcts and resulting cortical blindness as the only presentation of MCA territory stroke.<sup>1</sup>

**Animesh Das,** <sup>o</sup> **Sucharita Anand** <sup>o</sup>

Department of Neurology, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, Uttar Pradesh, India

**Correspondence to** Dr Animesh Das, Department of Neurology, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, 226014, India; animeshdas05@gmail.com

**Acknowledgements** The authors acknowledge the patient for giving her consent for publication of her MRI images and clinical information.

**Contributors** AD managed the patient and wrote the manuscript. SA provided technical help in the preparation of the manuscript.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

**Competing interests** None declared.

**Patient consent for publication** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.

© Author(s) (or their employer(s)) 2019. No commercial re-use. See rights and permissions. Published by BMJ.



**To cite** Das A, Anand S. *Postgrad Med J* Epub ahead of print: [please include Day Month Year]. doi:10.1136/postgradmedj-2018-135962

Received 28 June 2018  
Revised 11 January 2019  
Accepted 16 January 2019

*Postgrad Med J* 2019;0:1–2.  
doi:10.1136/postgradmedj-2018-135962

**REFERENCE**

- 1 Kahana A, Rowley HA, Weinstein JM. Cortical blindness: clinical and radiologic findings in reversible posterior leukoencephalopathy syndrome: case report and review of the literature. *Ophthalmology* 2005;112:e7–11.