

# Prosopometamorphopsia secondary to a left splenium of the corpus callosum infarct

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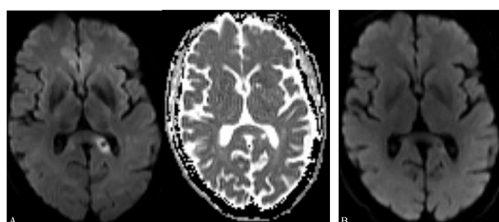
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## DESCRIPTION

A 67-year-old right-handed woman with a medical history of coronary artery disease, hyperlipidaemia, hypertension and diabetes mellitus presented with seeing peoples' faces distorted on the left side. When she saw faces in person or watched images of people on television, she noted the left eye on faces appeared to be moving to the side and upwards. She did not see any distortion when looking at her own face in a mirror or when looking at photographs of faces. She had no difficulty recognising faces and nothing other than faces appeared distorted to her. Her neurological examination was normal. Her ophthalmological examination was also unremarkable. Brain MRI performed 2 months after symptom development showed a subacute infarct in the left aspect of the splenium of the corpus callosum (figure 1A).

The remainder of her stroke workup included transthoracic echocardiogram with normal systolic function and no evidence of an atrial shunt, MR angiography of the head and neck which showed no significant vessel stenosis, haemoglobin A1c of 7.5 and total cholesterol of 120 with low-density lipoprotein (LDL) of 24. She was started on aspirin 325 mg daily for secondary stroke prevention. Repeat MRI of the brain completed 4 months after the first brain imaging showed expected evolution of a remote infarct along the left splenium (figure 1B). At that time, her symptoms had improved but not completely resolved. At 1 year, her symptoms had resolved completely.

Prosopometamorphopsia is a rare condition in which faces are perceived as distorted by the viewer



**Figure 1** (A) Diffusion-weighted MRI imaging 2 months after onset of prosopometamorphopsia showing a subacute infarct in the left splenium of the corpus callosum. There was no ADC correlate suggesting that the lesion is subacute. (B) Diffusion-weighted MRI imaging 6 months after onset of symptoms showing expected evolution of the infarct. ADC, apparent diffusion coefficient.

## Learning points

- Prosopometamorphopsia is a rare neurological condition in which the faces of other people or part of the face are perceived as distorted and may occur with lesions affecting the retrosplenium, putamen, retina, and temporal, parietal and occipital lobes.
- The perceived facial distortion secondary to lesions of the retrosplenium can be ipsilateral or contralateral to the side of the lesion.
- Prosopometamorphopsia can be the only manifestation of a stroke of the splenium of the corpus callosum.

and has been seen in patients with lesions affecting the retina, retrosplenium, putamen, and temporal, parietal and occipital lobes indicating these structures play important roles in facial processing.<sup>1 2</sup> The exact neural basis of prosopometamorphopsia remains unclear, but may involve abnormal activity in face-selective areas in the ventral occipito-temporal pathway.<sup>3</sup> Cases of unilateral prosopometamorphopsia secondary to lesions of the retrosplenium are rare and can be ipsilateral or contralateral to the side of the lesion.<sup>1 2</sup>

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