A reversible visual memory in transient splenial lesion

A 19-year-old man presented with vertigo and headache. Diffusion MRI showed an increased signal on the center of the splenium. Neuropsychological assessment demonstrated impairment on immediate and delayed recall of the Rey-Osterrieth complex figure test. His visual memory had improved by the time the splenial lesion disappeared on follow-up MRI (figure).

Although transient splenial lesions are commonly seen on diffusion-weighted imaging related with various conditions, the exact pathophysiology and its significance are not clear.1 Visual memory performance in our patient supports that splenium has an important role for integration of visual information through the temporal, parietal, and occipital cortical regions.2

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Figure Diffusion-weighted MRI exhibits increased signal change in splenium (A), the initial signal resolved on follow-up MRI (B), and performance of Rey-Osterrieth complex figure test also improved.
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