Teaching NeuroImage: Reversible Splenial Lesion Syndrome in a 43-Year-Old Man With Intracerebral Hemorrhage

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Figure Brain Images

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CT revealed intracerebral hemorrhage in the left parietal-occipital lobe (A). Initial MRI demonstrated a round-shaped lesion in the splenium of the corpus callosum, hyperintense on T2-weighted sequence (B), fluid-attenuated inversion recovery (C), and diffusion-weighted imaging (D) and hypointense on apparent diffusion coefficient map (E). 16-day MRI revealed complete remission of the callosal lesion (F–I).

A 43-year-old man with uncontrolled hypertension presented with a sudden headache and right homonymous hemianopsia. A brain CT revealed intracerebral hemorrhage, and an MRI examination

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demonstrated a hyperintense lesion on T2-weighted sequence in the splenium of the corpus callosum (Figure). Brain CTA and MRV were unremarkable. Etiologic workup in the blood and CSF was unrevealing. Sixteen days later, the hemorrhage was smaller and the splenial lesion disappeared completely (Figure). Reversible splenial lesion syndrome (RESLES) usually results from antiseizure medication withdrawal, infection (particularly influenza virus), severe hypoglycemia, and hypernatremia. The clinical manifestation of RESLES is nonspecific, mainly related to the concurrent event, and callosal disconnection syndromes have not been reported. RESLES represents a specific clinicoradiologic syndrome with a favorable prognosis, and repeated MRI is important to determine whether the lesion is transient. In this case, the splenial cytotoxic lesion may be associated with transient hypoperfusion resulting from the compressive effect of hemorrhage.2

Author Contributions

T. Yang: drafting/revision of the article for content, including medical writing for content; major role in the acquisition of

data. J. Lu: analysis or interpretation of data. X. Liu: study concept or design; analysis or interpretation of data.

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