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Images in...

Reversible lesion in the splenium of the corpus callosum associated with Legionnaires' pneumonia

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DESCRIPTION

A 37-year-old man presented to the emergency room with fever, slurred speech and a 4-day history of progressively worsening headache. His medical history was unremarkable. He was not on any drug treatment. He described the headaches as dull, mild, constant, holocephalic and without focal features. On examination, his temperature was 39.2°C, blood pressure was 108/62 mm Hg, pulse was 106 beats per min, oxygen saturation was 92% (ambient air) and respiratory rate was 40 breaths per min. He was awake and oriented, with slow responses. Chest auscultation revealed bronchial sounds at the right lung base. Posteroanterior chest radiography showed consolidation in the right lung (figure 1A). He had nuchal rigidity. The neurologic examination, including a basic screening cognitive assessment, was otherwise normal. Lumbar puncture revealed an opening pressure of 20.5 cm H_2O. Cerebrospinal fluid analysis revealed a normal cell count, increased glucose (87 mg/dl; normal, 50–75 mg/dl) and normal protein (36 mg/dl; normal, 10–40 mg/dl). MRI of the head revealed a callosal lesion (figure 2A–D). Legionella urinary antigen was positive, and *Legionella pneumophila* serogroup 1 was later cultured from expectorated sputum. Cerebrospinal fluid Gram stain and cultures were negative. He was diagnosed as having Legionella pneumonia and treated with levofloxacin. After approximately 2 weeks' treatment he improved (figure 1B), and the lesion in the splenium of the corpus callosum resolved (figure 2E–H). Brain MRI showed a transient lesion in the splenium of the corpus callosum that resolved with clinical improvement. He was discharged 1 month later without any neurological disorder.

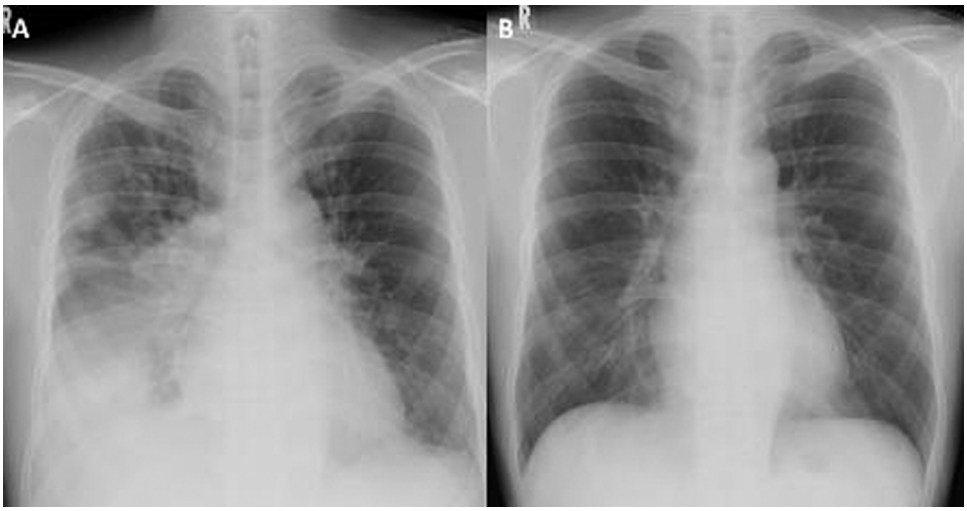

Figure 1 (A) Chest x-ray on admission showing consolidation in the right lower lung field. (B) Chest x-ray 2 weeks later showing disappearance of the shadow.

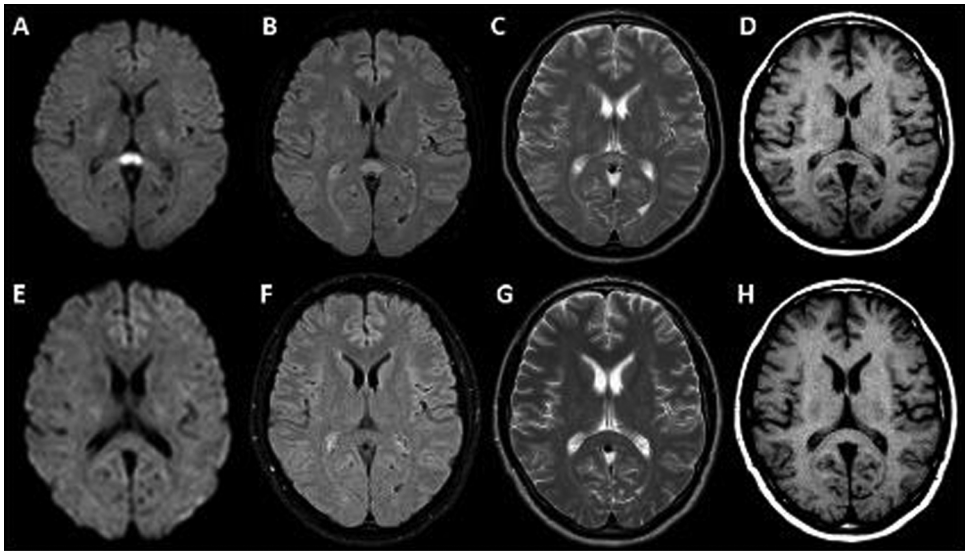

Figure 2 MR images of the brain on admission (A–D) and 2 weeks later (E–H). (A) An axial diffusion-weighted image shows a hyperintensity lesion in the splenium of the corpus callosum. (B) An axial fluid-attenuated inversion recovery image shows hyperintensity in the same region. (C) An axial T2-weighted image shows hyperintensity in the same region. (D) An axial T1-weighted image shows hypointensity of the same region. (E–H) Corresponding images of the same patient 2 weeks after treatment. The callosal lesion has resolved.

Competing interests None.

Patient consent Obtained.

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