INTERNAL MEDICINE

□ PICTURES IN CLINICAL MEDICINE □

Progression of Cerebrovascular Lesions in Pneumococcal Meningitis

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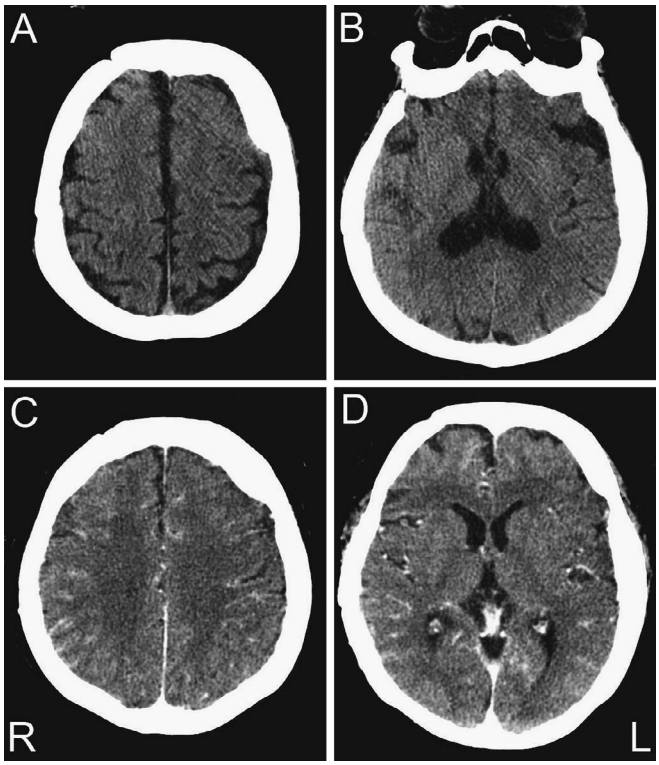
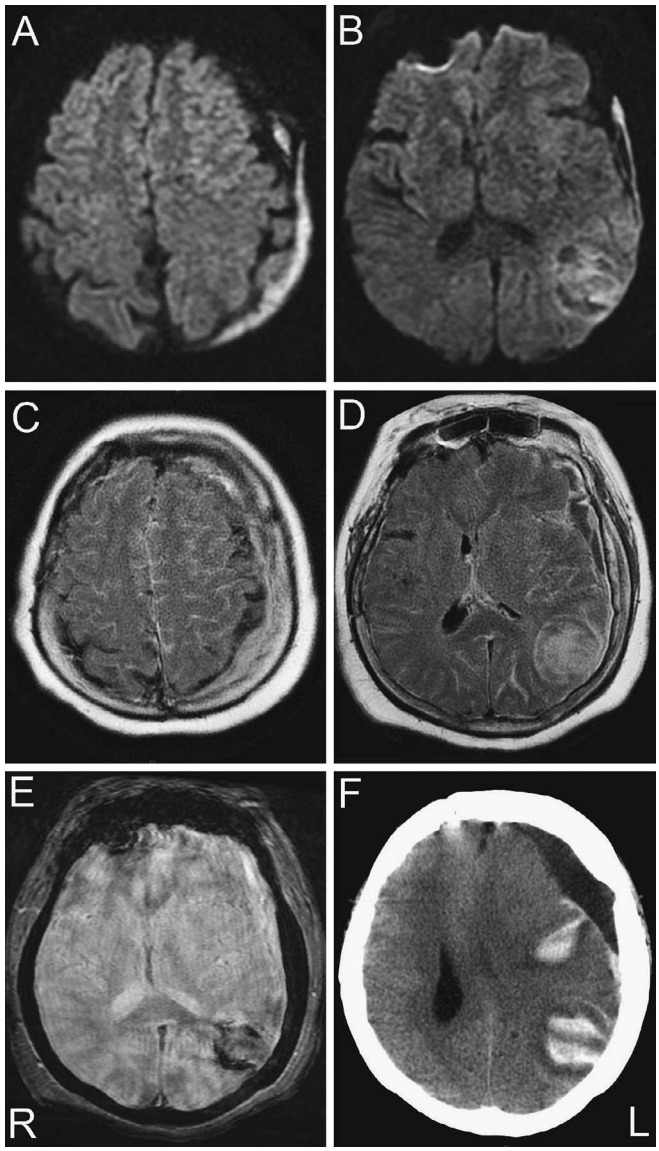


Picture 1.

A 50-year-old woman developed a sudden-onset headache. Consciousness disturbance and mild right hemiparesis appeared 1.5 hours after onset, but computed tomography scan was normal (Pictures 1A, B). Leptomeningeal contrast enhancement and edema were evident at 3.5 hours (Pictures 1C, D). Diffusion-weighted images (Pictures 2A, B), fluid-attenuated inversion recovery with gadolinium enhancement (Pictures 2C, D), and gradient-echo T2-weighted (Picture 2E) magnetic resonance images at 5.5 hours showed left temporal and subdural linear lesions with midline shift.



Picture 2.

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Magnetic resonance angiography and venography demonstrated no abnormalities. A diagnosis of bacterial meningitis with venous hemorrhagic infarcts and subdural empyema was made. Penicillin-sensitive *Streptococcus pneumoniae* were cultured from her blood. Hematoma and subdural empyema were evident on day 2 (Picture 2F).

Arterial or venous cerebrovascular complications are not rare in pneumococcal meningitis (1); however, vascular lesions are rare in the hyperacute phase of meningitis (2). We described serial radiologic findings showing the progression of venous hemorrhagic infarcts and subdural empyema in the hyperacute phase of pneumococcal meningitis.

References

1. Kastenbauer S, Pfister HW. Pneumococcal meningitis in adults; spectrum of complications and prognostic factors in a series of 87 cases. Brain **126**: 1015-1025, 2003.
2. Gray F, Alonso JM. Bacterial infections of the central nervous system. In: Greenfield's Neuropathology. 7th ed. Graham DI, Lantos PL, Eds. Arnold Press, London, 2002: 151-193.