Intractable progressive pneumocephalus due to tuberculous meningoencephalitis

Figure Serial brain CT



Initial brain CT with no abnormal findings (A). On hospital day 7, mild brain swelling was detected (B), and pneumocephalus with severe brain swelling was noted on day 20 (C). The final brain CT before the patient's death showed marked bony erosion (arrows) with massive pneumocephalus (D, E). The lines on section D represent the coronal plane of below images in section E.

A 25-year-old woman with preexisting systemic lupus erythematosus (SLE) was admitted to the hospital with fever and general fatigue. CSF examination revealed pleocytosis (40/mm³), high protein (120 mg/dL), and normal adenosine deaminase levels. Despite treatment with antiviral, antibiotic, and antituberculous medications, her mentation deteriorated with severe brain swelling and pneumocephalus (figure). Two weeks later, CSF tuberculous culture was positive without other coinfections detected. Nontraumatic pneumocephalus occurs rarely in tumor invasion and bacterial meningitis.¹ However, tuberculous meningoencephalitis should be considered in immunocompromised patients such as those with SLE who may develop nontraumatic pneumocephalus.²

K.-P. Oh, MD, Y.-J. Lee, MD, S.-C. Bae, MD, W. Baek, MD, Y.S. Kim, MD, H.Y. Kim, MD, Seoul, Republic of Korea

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Address correspondence and reprint requests to Dr. Hyun Young Kim, Department of Neurology, College of Medicine, Hanyang University, 17 Haengdang-dong, Seongdong-gu, Seoul, 133-792, Republic of Korea; hyoungkim1@hanyang.ac.kr

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