

A Case of Paraneoplastic Limbic Encephalitis during the Course of Depression

To the Editor: A 67-year-old man visited a psychiatric outpatient clinic in October of 2006 after experiencing decreased motivation as well as fatigue. Treatment was initiated following a diagnosis of depression. While physical difficulties such as fluctuating ear ringing and wobbling were apparent, a head CT scan and MRI revealed no irregularities. His treatment regimen consisting of oral administration of milnacipran, 150 mg/day, and alprazolam, 1.6 mg/day, produced limited results. By April of 2007, he was reclusive and experienced increased suicidal feelings, which improved to a certain degree after he was admitted to a psychiatric hospital for 3 months. He lived in stable condition at home after discharge, but his actions and conversation were sluggish. He also experienced unaccountable drowsiness, inability to articulate,

dryness of mouth, palpitations, and erections.

In July of 2008, he experienced fever outbreak and bloody sputum, and was immediately hospitalized following a diagnosis of pneumonia and cardiac failure. After hospitalization, a chest CT scan revealed enlarged lymph nodes, and biopsy confirmed a diagnosis of lung small cell cancer. On the 29th of the same month during hospitalization, tonic convulsions appeared on the left side of his body along with a concomitant deviation of the eyes to the right. A head CT scan revealed no bleeding. Administration of anticonvulsants and antibiotics brought his condition into remission, but afterward he exhibited cognitive dysfunction and odd behavior, asking questions such as, "Did I die or am I still alive? There's no oxygen so I wanted to ask." In a head MRI on the 11th of the same month, T2 weighted image, fluid attenuated inversion recovery (FLAIR), and diffusion weighted imaging showed high intensity signals in both the mesial temporal lobe and limbic cortex

(Figure 1). There were no findings suggestive of carcinomatous meningitis in CSF obtained by lumbar puncture. Antibodies for various types of viruses were also negative. Steroid pulse therapy was conducted following a diagnosis of paraneoplastic limbic encephalitis.¹ While the frequency of convulsions decreased to some degree, a moderate level of impaired consciousness remained. This was an unusual case in which various neurological symptoms developed over the course of depression, followed by development of lung small cell cancer and a final diagnosis of paraneoplastic limbic encephalitis.

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FIGURE 1.

