



A Case of Encephalitis Presenting with Depressive Symptoms

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Dear Editor,

Encephalitis is a cerebral inflammatory condition damaging the central nervous system parenchyma presenting with seizures and alterations in consciousness along with fever, headache and focal neurologic findings (1). Encephalitis may present with delirium, altered mental state and acute deterioration in cognitive functions. Catatonic symptoms, seizures, memory disturbances, speech impairment and autonomic dysfunction may develop during the course of the disease (2). The early and differential diagnosis from other diseases is of utmost importance due to dramatically increased response to treatment in the initial phase as well as during the course of disease. In this text, we present a case that was referred and followed up for depressive symptoms shortly before the onset of encephalitis signs.

The patient, a 55-year-old female, was brought to psychiatry outpatient clinic by her relatives for progressively worsening depressed mood, loss of interest, decreased activity and insomnia. According to the relatives, the patient had not been engaging in conversations for a while and stopped doing housework, cooking and even personal grooming. Patient's self and family history was not significant. Mental state examination revealed neglected grooming, depressed mood, anhedonia, decreased thought flow, poverty of speech, depressive themes in thought content, normal perception, decreased sleep and appetite. Anamnesis and her mental state examination were consistent with Major Depressive Disorder. She was prescribed sertraline, a selective serotonin reuptake inhibitor; 25 mg initial dose was increased to the 50 mg per day dose, given as once

daily, after 4 day of dosing. The patient was informed about potential side effects of drug therapy. Psychotherapeutic interventions such as supportive psychotherapy was initiated concurrently in order to help abolished negative patterns of thinking and to improve coping skills. Complete blood count and serum biochemistry results were within normal ranges. Brain MRI did not show any abnormality.

During her stay in the clinic, the patient was apathetic, non-communicative with other patients and was incapable of personal-grooming. Patient's condition partially normalized and she was discharged by her relatives' request. One week later she was brought to the emergency room with fever, deterioration in general status, nausea and vomiting. Mental state examination revealed fluctuations in cognitive functions, thought content with ruminations on the past, and psychomotor retardation; patient's relatives described visual hallucinations and emotional instability. Patient exhibited disorganized behavior and had epileptic episodes. Patient was referred to neurology and infectious diseases clinic on the premise that her current symptoms may be due to her general medical condition. Lumbar puncture, contrast-enhanced MRI and EEG were performed. Her EEG revealed periodic epileptic discharges from the left hemisphere. LP was consistent with infective encephalitis. Encephalitis treatment with ceftriaxone IV 2 gr/day and valproic acid PO 1000 mg/day was initiated. Patient's clinical condition improved moderately by the 15th day of treatment and after symptoms of the disorder diminished significantly, the patient was discharged on the 20th day. In her follow-up exam there was numbness in the right arm and did not exhibit psychiatric symptoms.

Much organic pathology such as traumatic brain lesions, cerebrovascular disease, seizure disorders, neuro-degenerative diseases, brain tumors and infectious – inflammatory diseases of the central nervous system may all present with psychiatric symptoms and signs (3). Psychiatric conditions may be the presenting symptoms of encephalitis, particularly due to viral infections, before the establishment of neurologic deficits. Among these symptoms are changes in personality, depression, hallucinations, anxiety and forgetfulness. As the disease progresses, neurologic findings become more prominent with seizures, loss of consciousness and paralysis. Our

case is an example of that.

Organic neurologic conditions causing depressive symptoms are subdural hematoma, frontal lobe tumors, Parkinson's disease, cerebrovascular events and seizure disorders (4). There are rare examples of encephalitis presenting with depressive symptoms in the literature (5). For example, it is reported that 46-year-old woman developed measles encephalitis presenting as schizophreniform disorder (auditory hallucinations, insomnia, depressive mood) and recovered three months after onset (5).

The mood changes and ability to initiate activities, memory problems and fatigue may appear at the beginning of the encephalitis and overlap with depression. As stated before, early recognition of this illness is of paramount importance and prompt initiation of treatment is life-saving and improve prognosis.

It is imperative that underlying medical conditions are ruled out in the differential diagnosis of depression, since these may endanger the patient's life and may sometimes be easily treated. Encephalitis has 70% mortality in untreated cases with a recovery rate of 92% when treatment is initiated early (6). Thus, detailed diagnostic work-up and differential diagnosis with possible underlying medical conditions is of utmost importance in patients without a family history presenting with depression for the first time.

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