Multiple Sclerosis Manifesting as Psychosis: A Case Report

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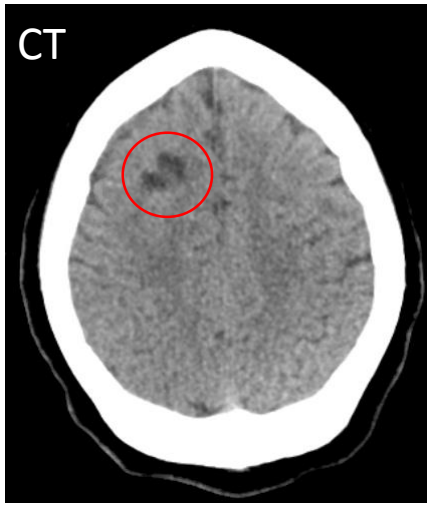
Introduction:

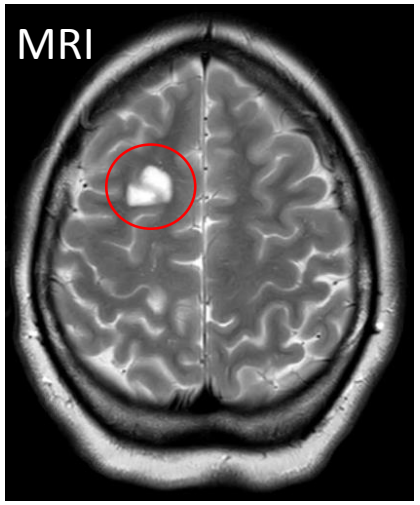
Patients with multiple sclerosis (MS) are reported to be 2-3 times more likely to suffer from psychosis compared to the general population[1]. However, there is limited body of research dedicated to MS induced psychosis in part due to MS being a relatively uncommon medical condition. We describe a case of a young female who presented with recurrent psychotic episodes who had neurological evaluations which revealed a diagnosis of multiple sclerosis.

Case presentation:

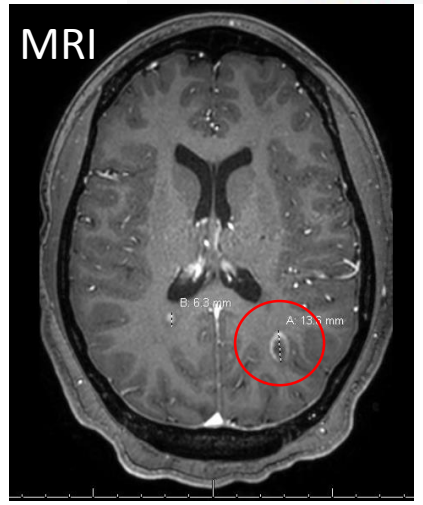
A 21-year-old female presented to the regional psychiatric hospital due to sudden worsening of her psychosis. Her medical history is significant for first break psychosis around 2 years ago as well as a diagnosis of non-epileptiform seizures around that time as well. Of note, a CT scan of the head without contrast was done around that time which was unrevealing. The patient was seen at outpatient clinic 2 months ago when she presented with a relapse of psychotic symptoms presumably due to non-compliance with treatment. She was diagnosed with schizophreniform disorder and was started on olanzapine 5 mg and titrated upwards to 7.5 mg QHS as she showed favorable response to it in the past. The patient showed partial response to treatment with olanzapine and continues to have residual auditory hallucinations, ideas of reference, and disorganization, although, the symptoms decreased in severity.

Following this, the patient decompensated and had an episode of lost consciousness, odd hand movements, bizarre behavior, and worsening auditory hallucinations. She presented to the inpatient psychiatric facility with frank psychotic symptoms such as disorganization, psychomotor retardation, auditory visual hallucinations, disorientation. The patient was switched from olanzapine to aripiprazole due to the side effect of weight gain. Few days after admission, she had seizure like activity as she was found slumped in a chair with her teeth chattering and body trembling. She was transferred to the regional medical hospital where an EEG was done which displayed non epileptiform seizure activity. However, a CT scan of the head without contrast was done which displayed white matter lesions concerning for a demyelinating disease which was confirmed with MRI (periventricular and subcortical white matter lesions perpendicular to corpus callosum, right frontal lobe subcortical white matter lesion, and another lesion in the left parieto-occipital lobe), and it was determined that patient was having an active multiple sclerosis flare.





Imaging displaying R frontal lobe subcortical white matter lesion



Left parieto-occipital lobe

Patient was treated with 3 days of IV methylprednisolone which made patient more agitated in the hospital, prolonging her stay. She later became catatonic, requiring scheduled dosing of Lorazepam with improvement in symptoms. However, she remained disorganized and internally stimulated with bizarre behavior.

Discussion:

Multiple sclerosis is an inflammatory disease process that can cause psychiatric symptoms such as depression, anxiety, and sleep inpairment[2]. In this case, patient's non-epileptiform seizures as well as psychosis can be explained by multiple sclerosis. We postulate that the first CT scan 2 years ago did not detect MS lesions as it is less accurate compared to an MRI[3]. We also postulate that she may have been suffering from an active MS flare during her first psychotic episode because she presented similarly with high degree of impulsivity, paranoia, significant disorganization, and a month later, with pseudoseizures. This case illustrates an example of psychosis secondary to an uncommon medical, neurological condition. It also exemplifies the importance of ruling out potential organic causes of psychiatric symptoms, especially with appropriate imaging. This case is distinct in that she presented with psychotic symptoms in her 20's right around the age of onset of psychotic illnesses like schizophrenia and bipolar disorder. Although, this patient did not have any medical history suggestive of underlying neurological illness, this case poses a clinical challenge to consider a medical condition presenting with psychiatric manifestations.

References:

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