

Psychiatric Manifestations of Silent Brain Abscess: A Case Report

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Abstract

Sometimes intracranial lesions may present only with behavioral symptoms without any localizing neurological signs and symptoms. Usually, these lesions present with headache, drowsiness, confusion, seizures, hemiparesis or speech difficulties. Silent brain abscess may at times present only with subtle psychological symptoms of confusion, altered sensorium and behavioral problems without any localizing sign and symptoms. Development of brain abscess lesion may occur as the result of a variety of infections, trauma, surgery, etc and may be associated with significant morbidity and mortality. Mental status changes are a common but insensitive finding of a brain abscess. We present a case of an elderly male who presented with acute onset psychological symptoms only but on investigation it was found to be silent brain abscess.

Key words: Focal neurologic deficit, Headache, Silent brain abscess

INTRODUCTION

As clinicians we often come across patients with vague sign and symptoms, which most of the times draw our provisional diagnosis toward the functional component. Number of cases have been reported wherein intracranial lesions have presented with psychiatric symptoms in the absence of any neurologic symptoms.¹⁻³ Morbidity and mortality⁴ are quite high in intracranial lesions so rather than under-diagnosing any condition, the possibility of organicity should always be kept in mind and patient should be thoroughly examined and investigated. Intracranial lesion like brain abscess may present with psychological symptoms without any neurological sign and symptoms and cannot be defiantly localized by their psychiatric presentations. Rarely do they present with psychiatric symptoms only without any localizing signs.⁵

We present here a very rare case of silent brain abscess in an elderly male who presented with only subtle

psychological symptoms without any localizing sign and symptoms.

CASE REPORT

A 72-year-old male presented to the Psychiatry outpatient department with the chief complaints of confusion, abnormal behavior, remaining perplexed, wandering around aimlessly for the past 8-10 days with sleepless nights. He was unable to identify and recognize his family members and earlier familiar objects. His son reported that he used to keep fidgeting with things, off and on calling out names of family members without any purpose. He had to be told repeatedly to take care of his personal hygiene and to have his food. He would remain withdrawn in his own self. All these symptoms started around 10 days back, which were of the acute nature and rapidly progressive in nature. He had also started self-muttering for the past 2-3 days and also became very aggressive on 2-3 occasions.

There was no history of any fever, headache, trauma, seizures, surgery or any other medical or surgical illness. He did not have any history suggestive of any focal neurological deficit. The patient did not have any past neurological or psychiatric illness. He was conscious, co-operative, but confused and somewhat disoriented. Neurological examination did not reveal any positive

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finding. Bulk, power, reflexes and plantar response were normal in all four limbs. Sensory and cerebellar examinations were also normal. There was no abnormality detected in the extrapyramidal system examination. Other systemic examinations were also normal.

Mental status examination (MSE) showed poor eye to eye contact, apathetic affect, increased reaction time, and perplexity. Attention was arousable but ill sustained. Memory was intact, abstraction impaired, insight was poor, and judgment was impaired in all the spheres. Mini MSE could not be performed.

Investigations namely complete blood count, hemogram, blood sugars, liver function tests, kidney function tests and serum electrolytes were within normal limits. Magnetic resonance imaging (MRI) brain (Figure 1) showed a hypodense peripherally enhancing abscess approximately 73 mm × 56 mm with thick and heterogeneous outer wall and thin inner wall in the left fronto-parietal region. Mass effect in the form of midline shift toward the right side measuring approximately 7.0 mm, causing compression of the ipsilateral lateral ventricle and mild dilatation of the contralateral lateral ventricle was also seen.

The patient was referred to the Neurosurgery Department for further management.

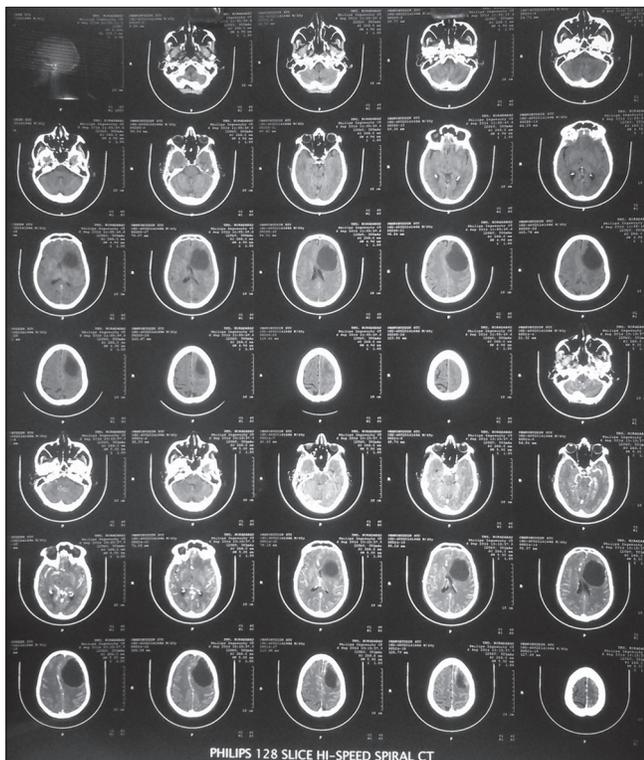


Figure 1: Magnetic resonance imaging brain showing a hypodense peripherally enhancing abscess approximately 73 mm × 56 mm with thick and heterogeneous outer wall and thin inner wall in the left fronto-parietal region

DISCUSSION

Brain abscess is a focal intracranial infection that may present as a life-threatening emergency. It is caused by the inflammation and collection of infected material, coming from the local or remote infectious sources, within the brain tissue. Development of brain abscess lesion may occur as the result of a variety of infections, trauma, surgery, etc. and carries significant morbidity and mortality. Still there are around 15% of cases, which could not be associated with any identifiable source.⁶

Initial manifestations of this abscess may be nonspecific, and, therefore, delay in diagnosis is quite common. Mean time from symptom onset to diagnosis is 2 weeks. Symptoms of brain abscess are caused by a combination of raised intracranial pressure and focal neurologic brain tissue damage. Fever is usually present in approximately half of the presentations. Headache, drowsiness, confusion, seizures, hemiparesis or speech difficulties are the common presenting symptoms, generally with a rapidly progressive course. Focal neurologic deficits may be present in 40-60% of the patients. However, classic triad of fever, headache, and focal neurologic findings are found in only 20% of the population.⁷ Clinical course of brain abscess may range from a few days to a number of weeks. Symptoms may occur depending on the size and location of the lesion. A ruptured brain abscess may present sudden worsening headache and severe mental status changes.

As seen in our case silent brain abscess presented with only subtle psychological symptoms of confusion, altered sensorium and behavioral problems without any localizing sign and symptoms. Mental status changes are a common but insensitive finding of a brain abscess.⁸ As already mentioned above that clinical manifestations may initially be non-specific thus resulting in delayed diagnosis. Such rare cases again stress out the importance and necessity of imaging in early diagnosis and prompt treatment to limit morbidity and mortality as brain lesions may lead to poor to worse prognosis.^{9,10} Contrast imaging can verify the presence, size, and number of abscesses.

CONCLUSION

As the clinical manifestation of brain abscess may vary widely from apparently non-dangerous headache to severe behavioral changes a detailed history, complete examination and thorough investigation is essential to improve the clinical outcome in such cases. Hence acute onset change in behavior and rapidly progressing psychiatric manifestations should always alarm one to keep a possibility of a brain abscess.

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