



ORGANIC DELUSIONAL DISORDER IN AN OPERATED CASE OF SUBDURAL HEMATOMA: A CASE REPORT

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ABSTRACT Subdural hematoma (SDH) is a collection of blood beneath the dura mater, usually caused by traumatic brain injury (TBI) or age-related atrophy. It presents with neurological deficits and may lead to cognitive impairment resembling delirium or dementia. Though uncommon, psychosis can emerge as a serious complication of TBI. This case report describes a 45-year old married woman diagnosed with Organic Delusional Disorder. Her symptoms began 3 years ago, following a craniotomy performed for a subdural hematoma sustained after accident. After thorough evaluation and investigations, she was started on Olanzapine, which gradually led to significant improvement in her symptoms. This case report emphasizes that early recognition and appropriate management of organic delusional disorder is crucial to improve the outcomes and reducing morbidity and mortality.

KEYWORDS : Subdural Hematoma, Traumatic Brain Injury (TBI), Post-traumatic Psychosis.

INTRODUCTION

Subdural hematoma forms because of an abnormal collection of blood under the dura mater which is secondary to an accident leading to Traumatic Brain Injury or due to brain atrophy associated with aging. It presents with features like alteration of the sensorium, raised intracranial tension and motor weakness. Common psychiatric manifestation in patients with chronic subdural hematoma is cognitive impairment which may mimic delirium or dementia. Psychosis is a relatively infrequent but potentially serious and debilitating consequence of traumatic brain injury (TBI), and one about which there is considerable scientific uncertainty and disagreement. There are several substantial clinical, epidemiological, and neurobiological differences between the post-traumatic psychoses and the primary psychotic disorders. Psychotic syndromes following a TBI can present in the period of post-traumatic amnesia, in association with post-traumatic epilepsy, in association with TBI-related mood disorders, and as a chronic, schizophrenia-like syndrome. The recognition of these differences may facilitate identification and treatment of patients whose psychosis is most appropriately regarded as post-traumatic. Therefore, there is a dire need to know how to diagnose and treat such rare cases in order to improve the overall management of such patients and reduce the morbidity and mortality.

Case Description

A 54-year-old, married female, was brought by husband, an adequate and reliable informant, with complaints of suspiciousness that her husband has been replaced by another similar looking man. She also had complaints of irritable, aggressive and abusive behaviour towards the husband, hearing voices inaudible to others, excessive grooming. All complaints were present for 3 years, and increased in the past 6 months.

She was apparently alright 3 years back before she met with an accident, after which she was taken to a hospital in an unconscious state. She was found to have an acute subdural hematoma in the left fronto-parieto-temporal region on CT Brain. She underwent craniotomy for the same and was comatose for 15 days. She regained consciousness and started recognising family members, but confusion persisted. She could not remember past events or recollect any details of the accident till 3 months, after which she could remember parts of the incident.

She started getting suspicious that her husband has been replaced, 3-4 days after she started remembering things. She said the person staying with her was not the same person that she had married. She said that the husband's lookalike would not give her food to eat and was trying to harm her. She would occasionally get irritable and abusive towards him. She was hospitalized yet again after 1.5 years for getting duraplasty done over a bone defect. She was discharged in May 2019

when she was medically well however the irritability and suspiciousness still continued.

She went to a marriage party after a few days where she heard voices talking ill of the bride. She then refused to enter the hotel and needed a lot of convincing by the husband to finally get her to attend the wedding. She was taken to a private psychiatrist for the same and was treated with medications (treatment documents were not available). She stopped taking the medications after a few days due to excessive sedation. She also started hearing god's voice saying she is the connection between God and the people. She used to share common people's problems to God through a wireless connection. She had tall claims expressing that this duty has been bestowed upon her by God and that she has established big hospitals to help people and fit in wireless systems there so that she could hear them and communicate their pain to the God. She started grooming more than usual, started wearing multiple rings and necklaces saying they were her shield to protect her from evil.

She started sleeping for just 4 hours at night not compensating the sleep in the daytime which was unlike her previous self. For all the above complaints, she was admitted to our hospital. She had no other major medical or surgical illness apart from hypothyroidism for 3 years for which she was on Tab. Thyronorm 25 mg OD, she was also on Tab. Phenytoin 300 mg in divided doses started by her neurosurgeon.

Family history of tall claims, overfamiliarity, aggressive and abusive behaviour in younger brother was present.

She had attained menopause 4 years back. No significant finding on general and systemic examination.

On Mental Status Examination (MSE) she was average built, kempt, was wearing a red scarf which she claimed was a gift from Durga Mata, she called it a protective shield along with her rings and necklaces. She would smile at anyone entering the room, shaking hands with a few. She initiated and maintained eye contact, rapport was established with ease, speech was spontaneous, continuous, coherent, relevant, normal in tone, volume and output, mood was euthymic, affect was congruent to thought, normal in range and reactivity, Thought – Delusion of persecution and Delusion of misidentification present along grandiose ideations, auditory hallucinations, 2nd and 3rd person were present; higher functions were intact, abstract ability was intact, judgement was impaired and insight was grade 1/6.

Diagnosis of Organic delusional disorder was given as per ICD-10 diagnostic criteria. Routine baseline investigations like chest X-ray, ECG, complete blood count, renal function tests, liver function tests, thyroid function tests were done and all were within normal limits.

Mini mental state examination (MMSE) was done and the score was 28/30 indicating no cognitive or memory impairment at the time of admission. Frontal assessment battery score was 8 suggestive of higher risk of frontal related cognitive deficits.

She was started on Tab. Olanzapine 10 mg in divided doses which was eventually increased to 15 mg after assessing her MSE every day in the ward. She got a neurology and neurosurgery consultation done both of which advised to continue the treatment with no active management from their side.

She was discharged at husband's request in 7 days as he had taken a leave from work to stay with her. She was asked to follow up after a week. We advised her to get an MRI Brain (Plain + Contrast) done post discharge, but it was not done.

On her first follow up husband reported she had showed significant improvement, she had started doing household chores like cooking and cleaning the house which she had left altogether before. She still had persecutory ideas against the husband, but the intensity had reduced. She said she could not hear voices because her phone had stopped working. The Olanzapine was increased to 20 mg.

Second consult was done after 20 days, and husband reported 80% improvement in symptoms- (goal directed activities and other psychotic symptoms). When asked about these symptoms, she couldn't remember all the details of how she had established hospitals and says there was a possibility that all of that might not be true. Husband followed up regularly till 2 months after which lockdown happened due to COVID-19 so the patient could not follow up later.

DISCUSSION

While reviewing the literature it was found that patients with Subdural hematoma mostly had symptoms of acute confusion, cognitive decline and personality changes with sexual disinhibition especially if the frontoparietal regions were involved. However, psychosis was seen in fewer cases. Most of the psychiatric symptoms resolve on resorption of the hematoma but this remains a topic of discussion for patients who retain residual symptoms, even after resorption of the mass.

In this case, there was no resolution of symptoms after resorption of hematoma following craniotomy and duraplasty. Thus, we admitted her and started her on second generation antipsychotic Olanzapine. It not only helped in resolution of the delusions and auditory hallucination but also in resolution of mood symptoms like tall claims, overfamiliarity and overgrooming. This patient also had family history of psychiatric disorder thus making her more genetically susceptible than the rest.

Traumatic Brain Injury (TBI) can interact with genetic vulnerability to increase the risk of developing illnesses such as schizophrenia. Thorough diagnostic assessment is the foundation of rational and effective pharmacotherapy for psychosis after TBI. Atypical antipsychotic drugs have emerged as first line drugs for treatment of psychotic disorders from all causes, including TBI. Psychosis is a relatively infrequent but potentially serious and debilitating consequence of traumatic brain injury, and one about which there is considerable scientific uncertainty and disagreement. Therefore, further research in the presentation, evaluation and treatment of rare cases like delusional disorder following subdural hematoma is the need of the hour.

CONCLUSION

Psychiatric manifestations following subdural hematoma are uncommon but clinically significant. While most symptoms improve after hematoma resolution, persistent psychosis may occur, especially in genetically predisposed individuals. Careful evaluation and timely use of atypical antipsychotics can lead to symptom improvement. Given the rarity of such presentations, further research is essential to enhance understanding and optimize management of post-traumatic psychosis.

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