A Case Series of Very Late-Onset Schizophrenia-like Psychosis

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Abstract

The onset of Schizophrenia in men is usually in late adolescence and early twenties and in women in late twenties and early thirties. However, in very rare conditions it is observed that Schizophrenia is seen in patients above 60 years of age. In such cases, the diagnosis of very late onset Schizophrenia like Psychosis (VLOSLP) is made.

The precise nature of VLOSLP still poses uncertainties, as it is unclear whether it is a unique disorder, a potential precursor to dementia, or an entirely different condition that remains elusive. More extensive research is necessary to explore this avenue and delve deeper into the subject matter.

The use of low-dose atypical antipsychotics is commonly advised, with careful monitoring for any potential side effects. It is essential to provide comprehensive psychoeducation to both the patient and their family members to enhance treatment adherence.

Key words: very late-onset schizophrenia like psychosis, late-onset psychosis, neurodegeneration, cognitive decline, antipsychotics.

Introduction

In 1998, a group of experts from around the world came together and coined the term "very late-onset schizophrenia-like psychosis. Disorders with onset between 40 to 60 years were designated as 'Late-Onset Schizophrenia', while those appearing after the age of 60 were referred to as 'Very Late-Onset Schizophrenia-Like Psychosis'.[1] The prevalence of schizophrenia in individuals aged 65 and above is estimated to be 7.5 per 100,000 person-years. In a comprehensive cohort study conducted by Stafford et al., the crude incidence rate of VLOS was found to be 37.66 per 100,000 person-years at-risk, making it the largest study of its kind to investigate the epidemiology of VLOS.[2] The precise classification and underlying pathophysiology of very late-onset schizophrenia-like psychosis (VLOSLP) remain unclear. However, both neurodegenerative and cerebrovascular mechanisms have been proposed, supported by common neuroimaging findings of white matter hyperintensity, particularly in the periventricular regions.[3] Case Reports

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Case 1

A 70-year-old married male, studied till diploma mechanical, belonging to a middle socioeconomic status family, Hindu religion, and is a resident of rural Shimoga presented with a 1-year duration of illness, insidious in onset, continuous course, episodic fluctuations and current exacerbation for 3-4 months, presented with complaints of feeling that his relatives and neighbors are speaking about him. He had delusions of persecution and delusion of reference. He reports that in the last 3-4 months, he has started feeling that he might change into a female. He had bizarre delusions of him changing into a female. Even after his wife reassured him, he would still feel the same. He would feel extremely distressed and would go to the temple, do prayer and poojas.

He started having visual hallucinations of a devi's idol coming in front of his eyes. He also mentions that he had stopped interacting with his family and son as before. Following these complaints, he came to the hospital.

The patient reports no significant family and personal history and is premorbidly described as suspicious and introverted.

General physical examination was WNL. The Mental Status Examination was corroborative with impaired insight. Neuropsychological examination revealed mild-to-moderate impairments in working memory, sustained attention, executive function, abstract thinking, and visuospatial ability. The Mini-Mental State Examination (MMSE) score was 21/30. Basic investigations such

as full blood count, renal function tests, liver function tests, thyroid function tests, fasting blood sugar and electrocardiogram were normal. Magnetic Resonance Imaging of the brain showed mildly diffuse brain atrophy. Psycho-educational sessions were conducted to educate the patient and the caregivers. He was started on olanzapine 5 mg daily and gradually increased to 10 mg for his psychotic symptoms and he gradually improved.

Case 2

A 77year old married male, studied till 2nd PUC, belonging to a middle socioeconomic status family, belonging to Hindu religion, and a resident of rural Shimoga came with his son with neem leaves packed in his pockets and hat, on inquiry it was revealed that he had delusion of persecution, he explained that someone has put toxic air in his house through the walls to kill him and he has to carry neem leaves as much as possible to detoxify the air or otherwise he will die due to poison (partition delusion). He also complained of auditory hallucinations

The patient is a k/c/o type 2 diabetes mellitus for 7years, k/c/o Hypertension for 5 years on regular medication.
The patient reports no significant family and personal history and a well-adjusted premorbid personality.

The physical and neurological examination did not reveal any abnormality. Mental status examination showed delusion of persecution, partition delusion and auditory hallucination of 3rd person type with abusing voices, a score of the Mini-Mental Status Examination (MMSE) was 27/30. Basic investigations such as full blood count, renal function tests, liver function tests, thyroid function tests, fasting blood sugar and electrocardiogram were normal. Magnetic Resonance Imaging of the brain was normal. To alleviate the patient's symptoms, a trial of low-dose oral risperidone 0.5 mg at night was commenced and gradually increased to 2 mg. Alongside this, a concurrent psychosocial intervention was implemented, leading to significant improvement. The patient has been consistently attending follow-up appointments and is showing symptomatic improvement.

Case 3

A 67-year-old married female, studied till class 5, belonging to a middle socioeconomic status family, Hindu religion, and is a resident of Batkala presented with complaints of the feeling of a snake moving in her body in the last 7-8 months, she saw neighbors killing the cobra and since then she started feeling that the same snake soul (rohu) which was killed a few days ago is present inside her. She had tactile hallucinations inside her body which she attributes to the snake. Despite her mother and husband reassuring her, she still believes that the soul of the snake remains inside her. Soon after the incident, the family members noticed a change in her behavior. She would move around the house in a fearful state and would not say anything. Family members also noticed that the patient would be seen muttering to herself all day. She had decreased sleep with significant bio-socio-occupational dysfunction.
Following these complaints, she was then taken to multiple temples. The patient along with her mother stayed there for one month and did several rituals and yet were not beneficial. The patient is a k/c/o type 2 diabetes mellitus for 3years on regular medication

She reports no significant family and personal history and with a paranoid premorbid personality
General physical examination was WNL, On MSE patient had bizarre delusions with tactile hallucination with anxious affect with impaired insight.

Mini mental state examination (MMSE) was 25/30. Basic investigations such as full blood count, renal function tests, liver function tests, thyroid function tests, fasting blood sugar and electrocardiogram were normal. Magnetic Resonance Imaging of the brain was normal. The patient's treatment plan involved initiating a trial of low- dose oral risperidone 0.5 mg at night, which was then gradually titrated up to 2 mg. Concurrently, a psychosocial intervention was implemented, resulting in substantial improvement. The patient has been attending regular follow-up appointments and is showing symptomatic improvement.

Discussion

The classification of schizophrenia takes into account the age at which symptoms first appear. Early-onset schizophrenia (EOS) refers to cases where symptoms emerge before the age of 40. Late-onset schizophrenia (LOS) is diagnosed when symptoms manifest between the ages of 40 and 60. Lastly, very-late-onset schizophrenia-like psychosis (VLOS) is characterized by the onset of symptoms after the age of 60.1
Predominantly affecting females, very late-onset schizophrenia stands apart from early-onset and late-onset schizophrenia. It is characterized by a higher prevalence of persecutory and partition delusions, increased rates of visual, tactile, and olfactory hallucinations, third-person running commentary, accusatory or abusive auditory hallucinations, lower genetic loading, more sensory abnormalities, and the absence of negative symptoms or formal thought disorders.[1] Partition delusion is the belief that people, objects or radiation can pass through what would normally constitute a barrier to such passage.[4]

The prevalence of EOS is higher in men. At the same time, women are more prevalent in the LOS and VLOSLP group, with a female-to-male ratio ranging from 3:1 to 20:1. This higher occurrence in women can be attributed to the simultaneous decline in estrogen levels as they age and an excess of dopamine D2 receptors. Additionally, psychosocial factors, such as effective coping strategies and strong social support systems, contribute to delaying the onset of schizophrenic symptoms in women. Family studies indicate that relatives of EOS patients have a 10.2% risk of developing schizophrenia, whereas relatives of LOS and VLOSLP patients have a lower risk of 2.9%. It has been reported that individuals with VLOSLP often display schizoid or paranoid personality traits.[5]
Cognitive deficits are commonly observed in individuals with VLOSLP, such as reduced processing speed, executive deficits, learning impairment, and language dysfunction, suggesting a possible connection to neurodegeneration.[6]

Recent genetic studies have revealed a common genetic susceptibility between schizophrenia, Alzheimer's disease, and the associated psychotic symptoms.[7] However, cognitive impairment is also prevalent in VLOSLP patients who do not progress to dementia. Therefore, the question of whether the likelihood of developing dementia is an inherent characteristic of VLOSLP or a result of an initial misdiagnosis remains a topic of controversy.[8]

Antipsychotic medication has long been the cornerstone of therapy for individuals with very late-onset schizophrenia. The use of Risperidone, Olanzapine, and Quetiapine in low doses has proven to be both effective and well-tolerated in VLOSLP. It is crucial to follow the approach of initiating treatment with a low dosage and progressing slowly following the dictum "start low, go slow".[10]

It is crucial to conduct a thorough evaluation of elderly patients displaying psychotic symptoms, as there is a diverse array of medical conditions that can present in this manner. The nature of this condition remains controversial, as it is unclear whether it is linked to neurodevelopmental abnormalities or neurodegenerative mechanisms. Consequently, diligent follow-up and monitoring are essential.

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