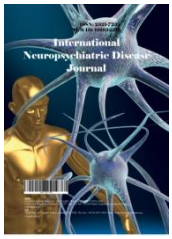

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Very Early-Onset Schizophrenia in a 7-Year-Old Girl

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Schizophrenia most commonly starts during early adulthood but it can emerge during childhood. Pediatric schizophrenia is used to describe schizophrenia occurring before 18 years of age. It can further be categorized into early onset type which occurs prior to 18 years and the very early onset type occurring prior to 13 years.

Miss AD, a 7-year-old female presented to our facility about 1 year ago with a 3-months history of illness. Initially, she stopped communicating with anyone; there was associated social withdrawal, sluggishness and decline in her academics. A few weeks later, she started talking and laughing to herself and 2 weeks prior to presentation, she started seeing strange things in clear consciousness and claiming her classmates were ganging up against her. Her teachers and parents were ignorant of the nature of her illness at the onset and as such, she was maltreated.

At presentation, a diagnosis of very early onset schizophrenia was made and she was commenced on treatment with oral Risperidone which was gradually increased over a period of 1 year of her ongoing treatment to 2mg total daily dosage. Additionally, oral chlorpromazine and Benzhexol were added; she is currently on 50mg nocte and 0.125mg daily respectively. During the course of her treatment, she showed significant improvement but no complete remission, residual symptoms such as starring on-end with occasional talking and laughing to herself persisted.

Keywords: Very early onset; pediatric; schizophrenia; psychosis.

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1. INTRODUCTION

Schizophrenia is a devastating chronic disorder [1]. It is a severe form of mental illness that distorts the way a person thinks, behaves, expresses emotions, perceives reality, and relates to others. It is associated with enormous burden on the individual, family and the society at large and is therefore a condition of a major public health concern. Schizophrenia most commonly emerges during early adulthood between the ages of 16 and 30 years, but it can also be diagnosed during childhood [2]. Pediatric schizophrenia generally describes schizophrenia occurring in a child before the age of 18 years [3]. It is classified into early-onset schizophrenia with onset prior to age 18 years and the subgroup very early onset schizophrenia which refers to the type with onset prior to age of 13 years [4].

Although, the lifetime prevalence of schizophrenia is 1% in the general population, [5] childhood-onset schizophrenia is far rarer than this. The National Institute of Mental Health (NIMH) in its childhood onset schizophrenia study, estimated the incidence of childhood Schizophrenia to be less than 0.04% [6]. There is no known single cause of childhood schizophrenia but as it is with adults, the cause is said to be multifactorial, involving factors like genetics, brain chemistry and environmental factors.

The diagnosis of pediatric schizophrenia is made difficult by some factors which include the fact that children may be unable to reliably describe their experiences and symptoms due to a restricted vocabulary or a limited understanding of their internal experiences [7]. Furthermore, children's imaginative play may be mistaken for hallucinations or delusions and those with poor or underdeveloped language skills may mimic the disorganized thought and speech pattern seen in schizophrenia [8].

Studies have shown that pediatric schizophrenia is associated with more premorbid deficits, [9] more negative symptoms, [10] poor prognosis and poor outcome [11].

2. PRESENTATION OF CASE

Miss A.D is 7-year-old female student from a monogamous, non-consanguineous middle-class family. She first presented to our facility about a years ago with 3-months history of ill-health. There was initial history of social withdrawal, sluggishness, lack of communication with anyone, starring into space and decline in her academic performance. Few weeks later, she started laughing and talking to herself for no apparent reason with associated abnormal facial gestures. She would also litter the floor around her with food while eating which was unusual of her. Two weeks before presentation, she started claiming her classmates were ganging up against her and said things that suggest she was seeing strange things in clear consciousness. Sometimes she says things like good morning fish and at other times, she would claim to see wild animals coming to attack her which made her so terrified that she had to be restrained to prevent her from running out of the house. There was no history of trauma in the patient. She had always lived with her parents together with her siblings in a supportive home environment and there was no history of neglect or abuse of any form prior to the onset of her symptoms.

Her abnormal behaviors were not seen as an illness from onset. Her teachers started punishing her for inappropriate behaviors and her parents thought she was possessed by an evil spirit which attracted harsh treatment from her mother, thereby, compounding her fearfulness.

Her pregnancy, delivery and early developmental history were essentially normal. There is positive family history of mental illness in her maternal grandfather, her mother's first cousin and her paternal uncle.

She was referred from a private hospital where she first presented. At presentation in our facility, a diagnosis of very early onset schizophrenia was made and she was admitted for inpatient treatment. She was initially sedated with parenteral diazepam 2.5ml and chlorpromazine 50mg. this was followed by oral Risperidone 0.5mg daily which over the 2 weeks of in-patient treatment, was increased to 1mg total daily dosage. Even without significant improvement, she was discharged on request by the second week to enable her mother go home to care for her younger sibling. By the fifth week of follow-up treatment, she was on 1.5mg total daily dosage of Risperidone and had shown significant improvement in her mental state. hallucinatory experiences, delusion and abnormal facial gestures had subsided. However, she was still starring on-end with occasional talking and laughing to herself.

After about 4 months of follow up treatment, she had an exacerbation characterized by restlessness, talkativeness and poor sleep. Oral chlorpromazine 25mg nocte was added. The dosage of chlorpromazine was increased to 75mg total daily dosage over the following one month and oral Benzhexol 0.125mg daily was also added. She improved over the next few weeks but occasional talking and laughing to herself persisted.

Four months later, there was complaint of excessive sleep which necessitated a reduction of oral chlorpromazine to 25mg nocte. Two months after this, which was her last clinic appointment, there was a relapse of her symptoms characterized by restlessness, poor sleep and with associated talking and laughing to herself. Oral Risperidone was increased to 2mg total daily dosage, chlorpromazine was again increased to 50mg nocte and Benzhexol was continued at 0.125mg daily.

3. DISCUSSION

The patient had an insidious onset of schizophrenia, which was initially characterized by academic decline and negative symptoms like social withdrawal, sluggishness, not relating or communicating with people and appearing distant. This is consistent with the prodromal period of early onset schizophrenia which has been well reported in literature [12]. This prodromal symptom is characterized by functional decline affecting multiple activities of daily living like academics, selfcare and social relationship [12] as seen in this case report. The prominence of negative symptoms in childhood schizophrenia as seen in this report is also reported widely in previous studies [10].

Belief in the supernatural causation of mental illness is widespread in the low- and middle-income countries [13,14] and also in some western countries [15]. Ignorance due to belief in supernatural causation has been reported to lead to patients suffering in several Nigerian studies [16]. These findings are consistent with this current case report in which patient suffered harsh treatment from her teachers and her mother. The insidious onset of the illness also contributed to their ignorance about her illness. It was not until she started having prominent positive psychotic symptoms that they started seeking medical help.

The important role of genetics in the etiology of schizophrenia has been widely established, study by Nurnberger and Berretini estimated that about 70% of the variation in the liability to develop schizophrenia is accounted for by genes [17]. More so, other studies described childhood schizophrenia as a rare and more severe form of the disorder with a higher genetic loading [18,19]. This is consistent with findings in this case report in which the patient has high genetic loading with family history from both her maternal and paternal lineage.

She has been on treatment for about a year and over this period, she has never had a complete remission of all her symptoms. This is consistent with findings from previous studies reporting that the prognosis of childhood Schizophrenia is generally poor [1].

4. LIMITATIONS

neuroimaging was not done for this patient because her parents could not afford to pay for it. Similarly, studies to further investigate the involvement of genetics is not available in the study area.

5. CONCLUSION

This case report supports the reported view that early-onset schizophrenia is a more severe form of the disorder, it also supports the findings of the insidious nature of its presentation, presence of prominent negative symptoms as well as poor prognosis of the condition that are widely reported in previous studies.

CONSENT

All authors declare that written informed consent was obtained from the father of the patient for publication of this case report. A copy of the written consent form is available for review by the Editorial office/ Chief Editor/ Editorial Board members of this journal.

ETHICAL APPROVAL

Ethical approval was obtained from the ethics and research committee of the Benue state University Teaching Hospital, Makurdi, Benue State, Nigeria.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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