



A Clinical Case Report: Schizophrenia

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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

Background: Schizophrenia (SCZ) is a serious mental disorder in which people take reality as abnormally. SCZ may cause in combination of hallucination, delusions, and extremely disorder thinking and behaviour that impairs daily functioning and cannot be disabling. There are different reasons of SCZ this may be as of Genes, Environment or Change in Brain Structures. In India around 3/1000 people were affected due to SCZ

Aim: The purpose of this case report is to determine the first line approach for a person with SCZ who has been referred to a public mental health facility for treatment.

Objective: To identifying symptoms of SCZ early, providing treatment and preventing possible complications.

Methods: Knowledge used to write this case description was gathered from PubMed outlets, search hand, searching college and personal libraries looking for research techniques and case report texts, engaging in or writing many case reports with experience.

Results: The patient was taken psychopharmacological treatment antipsychotic drugs olanzapine, Risperidone along with antidepressant Sertraline and psycho social therapy, coping strategies, family therapy, yoga, cognitive behavioural therapy, medication. After those symptoms was minimized.

Conclusion: Patients achieve positive outcomes not only through the support of their treatment management, but also through adaptation and family support. subsequently, with appropriate psychophysiological treatment, the patient gave a positive response and gradually all the planned goals were achieved. Finally, the patient was discharged and she is currently being monitored.

Keywords: SCZ; hallucination; delusion; mental disorder; family therapy; yoga; coping strategies; medications.

1. INTRODUCTION

SCZ is a long-term mental illness with a complex genetic and neurological foundation that disrupts early brain development and presents as a combination of psychotic symptoms such as hallucinations, delusions, and disorganization, as well as motivational and cognitive dysfunctions [1]. Several studies have found significant internalized self-stigma in patients with schizophrenia. Stigma associated with SCZ is devastating and can be detrimental to recovery. Many people with SCZ are challenged with the symptoms and disabilities caused by the disease. In addition, they are challenged by the stereotypes and prejudice that result from misconceptions about SCZ [2]. Men and women are equally affected by SCZ. SCZ is a significant mental illness that has an impact on a person's ability to think, feel, and act. SCZ patients may seem to be out of touch with reality. They may hear voices that others do not. Positive, Negative, and Cognitive symptoms are the three types of SCZ symptoms. SCZ can be triggered by a variety of factors, including genetics, environmental factors, and changes in the brain [3]. Although SCZ is not as common as other mental diseases, it can be extremely severe, affecting roughly 7-8 people out of every 1000 people. SCZ is a word used to define a mental illness that causes alterations in perception, thinking, and sense of self, as well as psychomotor sluggishness and antisocial behaviour [4]. SCZ by its very nature impairs patient's judgment and insight so it is very natural that chances of noncompliance in SCZ are high [5].

According to WHO, SCZ affects almost 24 million people in the whole world. In India around 3/1000 people were affected because of SCZ [6]. SCZ has a lifetime prevalence of about 1% and accounts for a huge health care burden, with annual associated costs in the United States estimated to be more than \$150 billion [7]. In the United States, SCZ affects among 0.6% and 1.9% of the people. Furthermore, according to a claims study, the annual prevalence of diagnosed SCZ in the United States is 5.1 per 1,000 people [8]. Males and females appear to have the same prevalence of the illness; however, males develop symptoms at a younger age than girls. In their early twenties, men are more likely than women to develop SCZ, whereas women develop SCZ in their late

twenties or early thirties [9]. It has adverse effects on both the patient as well as the people close to them. It causes considerable human suffering, and has a significant impact on health and social systems, which leads to immense economic losses [10]. Practicing yoga in a yoga centre on a daily basis though effective, is not feasible for most of the patients for various reasons, mainly logistics.

Grainyhead-like (GRHL) transcription factors were recently linked to the etiology of neural tube defects (NTDs). Overlying patterns in the variation of SCZ incidence with that of NTDs suggests the presence of common etiological risk factors. Bioinformatics analysis revealed that both missense SNPs caused substantial changes in the secondary structure of GRHL3-mRNA. Screening of the flanking sequences of rs545809A/T predicted silencer motifs for this SNP. One study result demonstrated that the rs545809A/T of GRHL3 gene could affect the risk of SCZ in populations [11]. Single nucleotide polymorphisms within genes encoding microRNAs may alter the expression of microRNAs and their target genes, contributing to the etiology of SCZ. The bioinformatics analysis showed that miR-143, as a critical miRNA, targets ERK5, ERBB3, HK2, and PKC ϵ , the four major genes involved in SCZ development. Our findings suggest that these two polymorphisms might affect SCZ susceptibility [12]. Converging evidence has recently established the significance of γ -aminobutyric acid neurotransmitter (GABA) system in the development of schizophrenia (SCZ) [13]. The role of purinergic receptor's signalling in mental disorders has implicated. There is no evidence regarding the association of P2XR4 single nucleotide polymorphisms (SNPs) and the risk of SCZ [14].

1.1 Case History

A case selected from selected Hospital where lack of mental health services for the remote population and underprivileged population, Selected Hospital provides mental health care services for all the needy people.

1.2 Patient Information

A 35-year-old female patient got admitted in psychiatric ward, in selected Hospital with the complaints by the verbalization of patient sleep

disturbance, loss of appetite, seeing people not seen by others and hearing voices not heard by others, aggressions. As per relative of patient her daughter and husband the patient was apparently asymptomatic 1 and half year ago her symptoms gradually increased in 5-6 months then patient started to showing a symptom of muttering to self and smiling to self, aggression, suspiciousness, seeing people and heard voices not seen and heard by others, decreased sleep and appetite, wondering behaviours, death wish are present. All necessary investigation like history collection, physical examination mental status examination blood investigation like CBC report shows red blood cells count 4.1 millions, total white blood cells 3.4 million haemoglobin level 11gm% was done and Doctor Diagnose here as a SCZ. She was admitted in ward for further evaluation and treatment.

1.2.1 Precipitating factors

Her older and younger brother passes away by doing suicide 2 year ago by hanging and another was murder by someone (reason unknown).

1.2.2 Predisposing factor

Genetic predisposition.

1.2.3 Perpetuating factors

The patient has poor compliance to medication.

1.2.4 Past psychiatric history

Patient does not take any medical treatment for these symptoms upto yet, though they visited multiple faith healers in last 1yr and after that they come to selected hospital. Patient is not having any past and present medical history apart to this. Patient was completely alright prior to presentation of above clinical manifestations. No any history of surgical intervention. And also had no any medical history present.

1.3 Diagnostic Assessment

1.3.1 Physical examination

Undernourished, scar present on her left hand's wrist.

1.3.2 Mental status examination

Mental status examination was done and finding of Patient was facial expression was anxious and sad, mannerism present, eye to eye contact was initiated but not maintained, Speech reaction

time was delay reaction, mood and affect are impaired. From of thought was not understandable, stream of thought is thought block, racy thought, flight of ideas, delusion of persecutory is present, ideas are death wishes are present. Disorder of perception in this 2nd person auditory and visual hallucination is present, she was well oriented of time, place and person. Memory, abstract, intelligence, judgement are intact. Insight was III (Awareness of being sick but due to something unknown in himself)

1.3.3 Data Extraction

Data extracted from PUB MED, Medline, and Cochrane database library.

2. PSYCHO PHARMACOLOGIC INTERVENTIONS

The patient is on following treatment regimen which is antipsychotics are prescribed from the date of admission tab olanzapine 10mg x HS tab clonazepam 0.5mg x SOS along with antidepressant tab sertraline 50mg x HS.

2.1 Tab Olanzapine 10mg x HS

Tab olanzapine is belongs to atypical antipsychotic drug. Which is used to treat SCZ And bipolar disorder. It is available in both tablet and injection form [15].

2.2 Tab Clozapine 0.5mg x SOS

Tab Clozapine is belongs to atypical antipsychotic drug. It is mainly used to treat SCZ. It may help to reduce the rate of suicidal behaviour. It is available in both tablet and injection form [16].

2.3 Tab Sertraline 50mg HS

Tab Sertraline is anti-depressant drug goes to selective serotonin reuptake inhibitor (SSRI) class. It is most effective for panic disorder, anxiety disorder, obsessive compulsive disorder (OCD) [17].

3. SCIENTIFIC DISCUSSION AND STRENGTH AND ASSOCIATED LIMITATIONS REGARDING THE CASE REPORT

This is a pure case of a SCZ. The 35-year-old female admitted in selected hospital with the typical symptoms of muttering to self and smiling

to self, aggression, suspiciousness, seeing people and heard voices not seen and heard by others, decreased sleep and appetite, wondering behaviours, death wish. The plan of care completely based on interventions were includes a various management that were pharmacological management, medical management, nursing management as well as the therapeutic management. Since from the first day of hospitalization, plan of action was planned with rationale; and according to the planning the implementation also done with positive outcomes. Patient achieved positive outcomes not only through the support of their treatment management, but also through adaptation and family support. With appropriate psychosocial treatment, the patient's response was positive and gradually all goals were meet. The client was finally discharged after month, she continues the follow up treatment.

3.1 Prognosis

The prognosis is the first and foremost dependant on early and successful treatment of SCZ. As well as the prognosis also depend upon the severity of the disease condition but also the socioeconomic background of the family and meanwhile family coping. Treatment regimen, later on the patient given a positive outcome and finally she discharged from the hospital while staying in hospital near about 1 month. During the hospitalization of a patient, as family were not able to afford the cost of treatment regimen, family approached for the fund and Rajiv Gandhi Yojana; from these sources the family got little bit of help.

4. DISCUSSION

SCZ is thought to develop as a result of a combination of hereditary and environmental causes. Many people who write about SCZ are optimistic, in contrast to how the condition is depicted in the media and perceived by the general population. Regardless of the goal of the research or comment on SCZ, most professionals agree that a cause will be discovered and that progress in the treatment of individuals who suffer from the illness will continue [18].

Acute behavioural disorders in patients with SCZ, such as aggression, agitation, or violence against others due to delusions, hallucinations, and anxiety, require instant treatment, according to the NICE guidelines for the prevention and

treatment of psychosis and SCZ in adults and the treatment guidelines of the Indian Psychiatric Society. For these patients, a quick tranquillizer is advised. Clinical pharmacists advised that the combination of haloperidol 10 mg IM and diazepam 10 mg IV was not optimal, but it followed the guidelines for intramuscular medication for acute behavioural disorders in mental health and learning disabilities, as well as the guidelines for clinical practise for SCZ treatment. Huang et al. conducted a review of current evidence on the treatment of agitated or aggressive individuals, as well as an open randomised controlled trial. Support the use of lorazepam in combination with haloperidol in the treatment of acute psychotic arousal. If the first dose of haloperidol 10 mg IM and diazepam 10 mg IM did not work, a second dose of the same drug combination was given. This did not comply with NICE guidelines for the prevention and treatment of psychosis and SCZ in adults, nor with the Indian Psychiatric Society's treatment guidelines for SCZ [19].

Millions of people around the world suffer from SCZ. It is the most common disorder in outpatient clinics that can cause a mixture of psychotic symptoms such as hallucinations, delusions, and delusions and synchronization and cognitive impairment. According to the British Association of Psychopharmacology, there is evidence that the first episode of psychosis responds to low doses of antipsychotics. It is also bio sensitive to antipsychotics in the early stages of the disease, which applies to both treatment and side effects [20].

A few techniques have been utilized to distinguish atomic pathways from the GWAS discoveries. One methodology utilized quality articulation information from in excess of 500 minds to contrast people and without SCZ. Applicable qualities were recognized by analysing how quality articulation information reflected the loci embroiled by GWAS, and these qualities were then tried in model frameworks to survey useful pertinence. This interaction recognized qualities engaged with the guideline of the postsynaptic layer, synaptic transmission, and voltage-gated potassium channels as related with SCZ. A correlative information driven methodology planned the GWAS results onto quality articulation profiles from various neuronal cell types to recognize which cell types may be influenced by the SCZ variations. These outcomes showed that qualities related with SCZ

hazard are not communicated across every single neuronal populace however rather are communicated explicitly in hippocampal pyramidal cells, medium sharp neurons, and cortical interneurons. A third, theory driven methodology examined the supplement (C4) locus inside the significant histocompatibility intricate, one of the loci most unequivocally connected with SCZ. Along with resulting work, this demonstrates that disturbed supplement interceded synaptic disposal by microglia happens in people with SCZ. A few pathways distinguished by hereditary examinations have additionally been involved by after death contemplates, including discoveries of lower levels of synaptic proteins, dendritic spines, and gamma aminobutyric corrosive (GABA)– ergic and glutamatergic markers in people with SCZ comparative with control members. Taken together, these discoveries propose that atypical working of supplement and microglial frameworks in SCZ might prompt the deficiency of dendritic spines [7].

5. CONCLUSION

Patients achieve positive outcomes not only through the support of their treatment management, but also through adaptation and family support. subsequently, with appropriate psychophysiological treatment, the patient gave a positive response and gradually all the planned goals were achieved. Finally, the patient was discharged and she is currently being monitored.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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