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Case Study of Paranoid Schizophrenia in Young Adults

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A B S T R A C T

Introduction: An individual with paranoid schizophrenia exhibits a preoccupation with one or more delusions and experiences frequent auditory hallucinations. This study aimed to describe the diagnosis and treatment of paranoid schizophrenia in young men. **Case presentation:** A 20-year-old man was found sitting in the middle of traffic on a bustling route, prompting the cops to transport him to the emergency department for medical care. The patient showed poor personal hygiene during the mental health assessment, appearing dirty and untidy. He constantly paces the examining room, ensuring his back is always against the wall. He exudes a subtle sense of unease with his environment. He characterizes his demeanor as "adequate." Despite his lack of emotional expression, his emotional expression remains constant. The working diagnosis for this patient was paranoid schizophrenia. The patient was prescribed a regimen of atypical antipsychotic medication, specifically risperidone, at a dosage of 2 mg, to be taken twice daily. The treatment will continue for 6 months, with monthly assessments of the patient's symptoms to gauge the medication's effectiveness. **Conclusion:** Prior to making a diagnosis of schizophrenia, it is critical to rule out any potential etiologies for the manifestation of psychotic symptoms, such as substance abuse, medication use, or medical conditions. In contrast to prior "typical" antipsychotics such as chlorpromazine and haloperidol, atypical antipsychotics provide a multitude of advantages. Although conventional medications are efficacious in treating the positive symptoms of schizophrenia, they may inadvertently worsen or even induce the negative symptoms.

1. Introduction

Schizophrenia is a condition characterized by a disruption that persists for a minimum of six months and involves at least one month of active-phase symptoms, which might include delusions, hallucinations, disorganized speech, extremely disorganized or catatonic behavior, and loose associations.[1,2] People with schizophrenia are considered to be in the active phase of the condition. Despite the fact that the condition has a one percent lifetime prevalence in the general population, only approximately 50% of affected people receive treatment. Men typically experience the onset of this condition between the ages of 18 and 25, while women typically experience it between the ages of 25 and 35.[3-4]

An individual with paranoid schizophrenia exhibits a preoccupation with one or more delusions and experiences frequent auditory hallucinations. Prior to diagnosing schizophrenia, it is crucial to eliminate any potential factors that may be responsible for the psychotic symptoms, such as substance abuse, medications, or medical conditions. A diagnosis of schizophrenia requires the presence of persistent psychotic symptoms lasting longer than six months. Schizophrenia is a long-lasting medical condition. Positive signs of schizophrenia include hallucinations, delusions, concepts of reference, paranoia, extremely disordered speech or behavior, and loose associations. Delusions are a type of positive symptom commonly associated with schizophrenia. Affective flattening, alogia, and avolition are negative symptoms commonly observed in individuals with schizophrenia. Affective flattening refers to a diminished display of emotions; alogia is characterized by a decreased flow and spontaneity of speech; and avolition refers to a lack of

initiative or goals.[5,6] This study aimed to describe the diagnosis and treatment of paranoid schizophrenia in young men.

2. Case Presentation

A 20-year-old man was found sitting in the middle of traffic on a bustling route, prompting the cops to transport him to the emergency department for medical care. Seeking to elucidate, the patient states, "The auditory hallucinations instructed me to embark on this endeavor." Over the past year, the patient has consistently expressed a belief that individuals are not being truthful about their identities. At that moment, he made the decision to discontinue his education and commence secluding himself in his room. He claims to be experiencing auditory hallucinations that are instructing him to participate in immoral activities. It is not unusual to hear multiple voices engaging in conversation, often expressing their thoughts to each other over his behavior. Although he acknowledges occasional marijuana use in the past, he asserts that he currently abstains from alcohol and pharmaceuticals. He claims to have stopped participating in this activity for the past six months because he could no longer afford it, and he affirms that marijuana has been beneficial in reducing auditory hallucinations. He claims that he has no medical conditions and is not taking any medication.

The patient showed poor personal hygiene during the mental health assessment, appearing dirty and untidy. He constantly paces the examining room, ensuring his back is always against the wall. He exudes a subtle sense of unease with his environment. He characterizes his demeanor as "adequate." Despite his lack of emotional expression, his emotional expression remains constant. The pace, cadence, and timbre of his speech are all quite conventional. He occasionally forms loose associations due to the tangential nature of his thought processes. A direct relationship exists between the content of his thoughts and the occurrence of auditory hallucinations and delusions. He affirms that he harbors no contemplation of committing suicide or causing harm to others. No family history was found in this patient.

This patient demonstrates both delusions, which are the conviction that other people are not who they claim to be, and auditory hallucinations, which are the two key diagnostic criteria for schizophrenia. This individual exhibits both of these symptoms. The hallucinations have a commanding character, as well as a form of commentary from several voices communicating with one another. There are multiple voices communicating with one another. Individuals who suffer from schizophrenia are known to experience similar hallucinations. The evaluation of the patient's mental health revealed a softening of his associations. He is a candidate for social and/or occupational dysfunction since he has stopped going to school and has alienated himself from his peers. This is in accordance with the criteria for social and/or occupational dysfunction. The disease has plagued him for at least a year. He asserts that he does not suffer from any mood-related symptoms, does not engage in substance use, and does not have any medical issues. The laboratory examination yields normal results, with no substances detected in his urine or blood. The working diagnosis for this patient was paranoid schizophrenia. The patient was prescribed a regimen of atypical antipsychotic medication, specifically risperidone, at a dosage of 2 mg, to be taken twice daily. The treatment will continue for 6 months, with monthly assessments of the patient's symptoms to gauge the medication's effectiveness.

3. Discussion

Schizophrenia is a mental illness that causes problems for at least 6 months and has active symptoms for at least 1 month. These symptoms may include delusions, hallucinations, slurred speech, very confused or catatonic behavior, and trouble making connections between things. Only one of the preceding is needed if the delusions are bizarre, the auditory hallucinations involve comments on the patient, or there are two or more voices talking to each other. There has to be significant social and/or occupational

dysfunction. Some symptoms are required to be present for at least 6 months; they can include only negative symptoms or less intense positive symptoms. Both schizoaffective disorder and mood disorder with psychotic features need to be ruled out. A substance (either of abuse or medication) or general medical condition cannot cause the symptoms.[7-9]

The general population has a lifetime prevalence of 1%, although only approximately 50% of those affected actually receive treatment. In males, the typical age at which symptoms first appear is between 18 and 25 years, whereas in females, it is between 25 and 35 years. Women generally experience more favorable outcomes compared to men.[3,4] Approximately 20% to 40% of individuals diagnosed with schizophrenia engage in suicidal behavior. Important risk factors include depressive symptoms, especially hopelessness, being under 45, male, unemployed, and having recently left the hospital. 10% of individuals diagnosed with schizophrenia will effectively carry out suicide. Schizophrenia exhibits a diverse and unpredictable progression. Certain individuals exhibit periods of worsening symptoms and periods of improvement, while others experience ongoing illness. A full recovery is improbable. Between 40% and 60% of patients endure a notable and long-lasting decrease in their abilities.[10-11]

There are five subtypes of schizophrenia; (1) paranoid: characterized by preoccupation with one or more delusions or frequent auditory hallucinations; (2) disorganized: usually characterized by disorganized speech and behavior, with flat or inappropriate affect; (3) catatonic: characterized by two or more of the following: (a) motor immobility (catalepsy/stupor), (b) excessive purposeless motor activity, (c) extreme negativism (maintenance of rigid posture) or mutism, (d) peculiar voluntary movements such as posturing, stereotyped movements, prominent mannerisms or grimacing, and (e) echolalia/ echopraxia; (4) undifferentiated: two or more of the following are present: delusions, hallucinations, disorganized speech, grossly disorganized behavior, and negative symptoms, but the patient does not meet the criteria for the other subtypes of this disorder; and (5) residual: characterized by the absence of prominent delusions, hallucinations, disorganized speech, or grossly disorganized/catatonic behavior.[1] Continuing evidence of disturbance is indicated by the presence of negative symptoms or two or more criteria in an attenuated form.[12,13]

The most crucial and urgent considerations in the differential diagnosis involve medical disorders that exhibit psychotic symptoms, such as deliria, dementia, severe hypothyroidism, and hypercalcemia. Typically, we derive clues from the patient's medical background or their presentation, such as the absence of any previous mental history, the emergence of symptoms at a later age, or a favorable appraisal of their overall health. Conducting a physical examination and analyzing laboratory studies such as thyroid function testing, electrolyte level measurement, and rapid plasma reagin (RPR) assays can clarify the diagnosis. Alcohol and illegal drug consumption can induce psychotic symptoms, either while under the influence of substances like hallucinogens, cocaine, phencyclidine, and methamphetamine, or during the withdrawal process from alcohol and benzodiazepines. Specifically, the symptoms of phencyclidine intoxication can be indistinguishable from those of schizophrenia. In most cases, a comprehensive analysis of substance use history, a physical examination involving the assessment of vital signs, a measurement of blood alcohol level, and a urine toxicology screening indicate that substance use is a contributing factor.[14,15]

It is crucial to thoroughly assess the medications a patient is using, including both prescription and non-prescription drugs, as well as herbal supplements. This is because certain medications, such as steroids and anticholinergics, have the potential to induce psychotic conditions. Differentiating schizophrenia from both schizoaffective illness and mood disorders with psychotic symptoms (such as severe depression or bipolar disorder) can provide a challenge. Due to their psychotic symptoms, patients often have difficulty accurately recalling facts, making it

necessary to get information from alternative sources such as earlier records, family members, or significant others. This is critical for having a complete history and clarifying the situation at hand. The aforementioned characteristics are critical not only for identifying the condition but also in determining the appropriate course of treatment and predicting the likely outcome. Psychotic symptoms accompanying a mood illness typically have a more favorable outlook than schizoaffective disorder, which in turn has a more favorable outlook than schizophrenia.[3,5]

The primary approach to treating schizophrenia involves the administration of newer, atypical antipsychotic drugs such as risperidone, olanzapine, quetiapine, ziprasidone, and aripiprazole. Despite its efficacy, particularly in cases of treatment-resistant schizophrenia, the risk of agranulocytosis precludes clozapine from being considered a primary medication option. Atypical antipsychotics offer numerous benefits compared to earlier "typical" antipsychotics like chlorpromazine and haloperidol. While conventional drugs effectively address the positive symptoms of schizophrenia, they have the potential to exacerbate or even induce negative symptoms. Atypical drugs show efficacy in treating both positive and negative symptoms, at least to the same extent as earlier medications. Researchers have found that atypical antipsychotics significantly contribute to the development of metabolic syndrome, which encompasses obesity, glucose intolerance, hypertension, and dyslipidemia.[6,9]

Clozapine and olanzapine are generally considered to have the highest propensity for causing metabolic syndrome, while ziprasidone and aripiprazole have the lowest incidence of metabolic syndrome. Also, older antipsychotics are more likely to cause unwanted side effects, especially extrapyramidal symptoms (like dystonias, Parkinsonian symptoms, and akathisia), hyperprolactinemia (which can cause impotence, amenorrhea, or gynecomastia), and tardive dyskinesia. To address acute symptoms such as dystonic responses and Parkinsonian symptoms, one can either decrease the dosage or introduce an anticholinergic medication like benztropine. Furthermore, benzodiazepines or a beta-blocker like propranolol can alleviate akathisia. Unfortunately, tardive dyskinesia typically persists as a permanent disorder and can cause both disfigurement and disability. Neuroleptic malignant syndrome (NMS) is a highly severe adverse reaction that can manifest with any antipsychotic medication at any point during the course of treatment. The management of NMS primarily focuses on providing supportive care, frequently utilizing dantrolene and bromocriptine as therapeutic interventions.[10]

Prior to diagnosing schizophrenia, it is important to exclude any instances of substance misuse, medications, or medical illnesses that may be responsible for the presence of psychotic symptoms. Psychotic symptoms must persist for more than 6 months to diagnose schizophrenia, making it a persistent condition. The positive symptoms of schizophrenia encompass hallucinations, delusions, notions of reference, paranoia, highly disorganized speech or behavior, and loose associations. The negative symptoms of schizophrenia encompass affective flatness, alogia (reduced fluency and spontaneity of speech), and avolition (absence of motivation or objectives). In general, major depression with psychotic elements has a more favorable outlook than schizoaffective disorder, which in turn has a more favorable outlook than schizophrenia. Clozapine is advantageous, particularly in cases of schizophrenia that do not respond to treatment, but it has a notable drawback in that it may induce agranulocytosis. Neuroleptic malignant syndrome has the potential to manifest with any antipsychotic medication at any point during the course of treatment. The treatment mostly consists of providing assistance, which may involve the administration of dantrolene or bromocriptine.[11,15]

4. Conclusion

Prior to making a diagnosis of schizophrenia, it is critical to rule out any potential etiologies for the manifestation of psychotic symptoms, such as

substance abuse, medication use, or medical conditions. In contrast to prior "typical" antipsychotics such as chlorpromazine and haloperidol, atypical antipsychotics provide a multitude of advantages. Although conventional medications are efficacious in treating the positive symptoms of schizophrenia, they may inadvertently worsen or even induce the negative symptoms.

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