

Catatonia and Schizophrenia: A Case Report

Ali Mahmood Khan^{1*}, Javeria Sahib Din², Faiza Farooq³, Muhammad Mustafa Ahmed⁴, Nimisha Srivastava⁵, Naveed Ahmed Shaikh⁶ and Abdul Mohit⁷

^{1 2 3 6} Kings County Hospital Center, New York, U.S.A.

⁴Ziauddin Medical College, Karachi, Pakistan.

⁵Kasturba Medical College, Manipal, India.

⁷Kings County Hospital Center, Attending Psychiatrist, Behavioral Health Center, Unit Chief, New York, U.S.A.

*Corresponding author

Ali Mahmood Khan, Kings County Hospital Center, New York, U.S.A. Email: ali_mahmood_khan@hotmail.com

Submitted: 22 June 2017; Accepted: 27 June 2017; Published: 29 June 2017

Abstract

This case is of a 47 year old African American female diagnosed with catatonic schizophrenia and paranoid schizophrenia which has deteriorated over the past two weeks. The patient recently attacked her father, has been mute and has also been throwing herself onto the floor expressing disorganized thoughts, poorly taking care of self and insomnia. The patient was first admitted for psychiatric care at the age of 20 and has a past history of DVT of lower extremities, hypertension, obesity and anemia. No signs of intoxication or drug withdrawal were observed. Patient had been on Haldol decanoate 300 mg IM. After admission in ward patient was continued on Haldol decanoate, Depakote and Lorazepam. Patient responded well to treatment and a certain level of independence was achieved.

Introduction

This research is being conducted to find out the relationship between schizophrenia and catatonia. According to researches patients having schizophrenia have also encountered catatonic episodes. Schizophrenia and catatonia have been previously very closely related to each other. This research is based upon finding if there is any relationship in between the two diseases.

Case Presentation

A 47 y/o African American female, carrying a diagnosis of Catatonic Schizophrenia and Paranoid Schizophrenia, was brought by EMS escorted by her cousin. Patient was selectively mute and attacked her father, before being brought to the hospital. Patient has been throwing herself on the floor, expressing disorganized thoughts, poorly taking care of self, not sleeping and deteriorating for the past two weeks.

In the CPEP (Comprehensive Psychiatry Emergency Portal), patient lowers herself to the floor, was uncooperative and mute. Patient's blood glucose levels were immediately measured, which were 157 mg/dl. Patient had a BP of 157/97 and a heart rate of 139; rests of the vitals were normal. Patient did not show any signs of intoxication or withdrawal. Patient is on Haldol decanoate 300 mg IM, which is administered by her ACT (Assisted Community Treatment) team staff. Patient missed her last dose a week back.

Patient has a past medical history of DVT of her lower extremities, hypertension, obesity and anemia. Patient resides with her family in a basement apartment. She has a history of multiple hospital

admissions over the past years. She was first hospitalized for her psychiatric care at the age of twenties. Patient has never married and has no children. Patient moved to U.S.A. when she was 29. She has a history of one suicide attempt by overdose in the past.

Patient was moved to the ward and admitted, where she was continued on Haldol, Depakote and Lorazepam. Patient was status Q15 due to risk of violence and fall. In her room, social worker tried calling her name many times but she did not respond. Patient was seen lying mute on the bed, standing straight in the hallways, not taking care of self and eating only if nursing staff puts food in the mouth.

In the next weeks, patient was continued on her medications and was closely observed for the risk of choking. Treatment team consisting of the doctor, psychologist and social worker tried talking to the patient every day. Patient, slowly and gradually started improving in the following weeks. After 6 weeks of admission, patient is now speaking in short sentences, only when addressed for example, patient now responds to her name. Patient is now eating food by herself and is taking showers. However, patient is still sometimes seen responding to internal stimuli. Additionally, patient's insight and thought process is improving.

Psychosocial factors involve family stressors, unemployment, noncompliance and no children. Biologic factors include a long history of Schizophrenia. Patient's strength includes no history of drug or alcohol abuse.

Discussion

Schizophrenia is a disorder that disrupts the way a person thinks feels and acts. Patients have difficulty in distinguishing between reality and imagination. Such problems cause difficulty for patients to express themselves in normal social conditions [1]. It is still not clear as to what causes schizophrenia but it is believed to be because of genetics, abnormal brain structures or chemistry or possibly due to viral infections and immune disorders. Patients feel symptoms of delusions, hallucinations, disordered thinking, speech and behavior and motor function deficits [2].

Catatonia is a state in which a person is unresponsive to external stimuli even though the patient is apparently awake. There are 3 types of catatonia (1) catatonia associated with another mental disorder (catatonia specified), (2) catatonic disorder due to another medical condition, and (3) unspecified catatonia. Patients usually have a history of behavioral responses and also show mutism, a rigid posture, fixed staring, stereotypic movements, and stupor. Catatonia is believed to be caused by irregularities in the hormones such as dopamine, gamma-aminobutyric acid (GABA), and glutamate neurotransmitter systems [3-5].

Catatonia and schizophrenia however do seem to be very similar in nature but in fact they are not the same. Catatonia may contribute towards schizophrenia but is not necessarily the same thing [6]. Catatonia used to be considered a subtype of schizophrenia but now due to recent researches they have been separated and catatonia itself has been given the status of a psychiatric disorder [7]. Catatonia has not been described as a subtype of schizophrenia and the medications for both the diseases are also different. Antipsychotics are useful in the treatment of schizophrenia but not in catatonia and it may also worsen the case by inducing neuroleptic malignant syndrome. Benzodiazepines are effective in the treatment of both malignant catatonia and neuroleptic malignant syndrome [8].

Catatonia occurs due to imbalance of hormones. These hormones play a vital role in the body but when these hormones are disrupted they lead to changes in the body [9]. Since both schizophrenia and catatonia are disorders of hormones it is safe to say that both of them may be closely associated to each other. Patients with previous history of schizophrenia are at a higher risk to encounter catatonia and it is also advised to check for a history of comorbid disorders, including schizophrenia, mood disorders, psychological stressors, medical conditions, and obstetric conditions. If any of these disorders are found they should be physically evaluated [1]. In certain researches it has been evaluated and believed that patients who did have schizophrenia also had episodes of catatonia as well [10].

Conclusion

After research it can be said that since catatonia was considered as a part of schizophrenia in earlier times the relationship in between the two is very close. Patients having schizophrenia are observed having catatonic episodes therefore schizophrenia can be stated as a cause of catatonia or an aggravating factor for catatonia hence indicating a positive relationship between the two diseases.

References

1. Cosgrove D, Mothersill O, Kendall K, Konte B, Harold D, et al. (2017) Cognitive Characterization of Schizophrenia Risk Variants Involved in Synaptic Transmission: Evidence of CACNA1C's Role in Working Memory. *Neuropsychopharmacology* 26: 1-13.
2. Bernard JA, Goen JRM, Maldonado T (2017) A case for motor network contributions to schizophrenia symptoms: Evidence from resting-state connectivity. *Hum Brain Mapp*.
3. Appiani FJ, Castro GS (2017) Catatonia is not schizophrenia and it is treatable. *Schizophr Res S0920-9964: 30305-5*.
4. Ohi K, Kuwata A, Shimada T, Yasuyama T, Nitta Y, et al. (2017) Kawasaki Y Response to benzodiazepines and the clinical course in malignant catatonia associated with schizophrenia: A case report. *Medicine (Baltimore)* 96: e6566.
5. Ann M (2007) Mortimer Symptom rating scales and outcome in schizophrenia *The British Journal of Psychiatry* 191: s7-s14.
6. Burrow J, Dulebohn S (2017) *Catatonia, Stat Pearls*. Treasure Island (FL): Stat Pearls Publishing
7. Max Fink, Michael A. Taylor (2009) Catatonia-in 100 words *The British Journal of Psychiatry* 194: 325.
8. Hettige NC, Bani-Fatemi A, Sakinofsky I, De Luca VA biopsychosocial evaluation of the risk for suicide in schizophrenia. *CNS Spectr* 24: 1-11.
9. Walton E, Hibar DP, van Erp TGM, Potkin SG, Roiz-Santiañez R, et al. (2017) Karolinska Schizophrenia Project consortium (KaSP). Prefrontal cortical thinning links to negative symptoms in schizophrenia via the ENIGMA consortium *Psychol Med* 26: 1-13.
10. Alexander Moreira-Almeida (2009) *Corrections*. *BJP* 195: 371.

Copyright: ©2017 Ali Mahmood Khan, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.