CASE REPORT

CASE REPORT OF BIPOLAR DISORDER WITH SUBSTANCE USE DISORDER; COMORBIDITY OR CONFOUNDERS?

Dordoye EK[1], Gyapong JO[1]
[1]University of Health and Allied Sciences, UHAS, Ho – Ghana.

Abstract

Objective: Bipolar disorder commonly presents with substance use and there is the diagnostic challenge of one being a sequela of the other or the two being co-morbid conditions. The distinction is important as the effective treatment of the primary condition can lead to a concomitant remittance of the other. A misdiagnosis and a consequent ineffective treatment on the other hand, can lead to worsening prognosis of both conditions in the person. This aims at bringing attention to this diagnostic dilemma and the need to hone skills for proper diagnosis and eventual effective treatment.

Case Presentation: Ms. KK is a 28-year-old divorcee and Human Resources Manager who presented with gregariousness, sleep difficulty and smoking of marijuana for two months. She had resumed smoking of marijuana after some 6 months break. She admitted to suicidal ideation and behaviours even though she also had many big plans to transform mental healthcare in Ghana. She was admitted a year earlier as schizophrenia for less than a week after which she had a divorce.
Ms. KK was referred for management of substance induced psychosis to include residential rehabilitation. She was managed after review for bipolar disorder with substance use disorder. She was treated with long-acting second generation antipsychotic and she quit smoking with the remission of her mood symptoms after two months.

Conclusion: Mood disorders can occur with substance use disorder as a co-morbid condition or part of the symptomatology of mood disorder. Substance use disorder can also present with mood symptoms or unmask mood disorders. When the correct diagnosis of a primary mood disorder, bipolar disorder in this case, with co-morbid substance use disorder is made, effective treatment of the mood disorder can remit substance use.

Key Words: *bipolar disorder, comorbidity, substance use disorder*

Introduction and background

The two main mood disorders according to the Diagnostic and Statistical Manual, fifth edition, DSM V, are bipolar disorder and depressive disorder. Over 60% of persons with bipolar disorder were observed to have substance use disorder in the National Institute of Mental Health (NIMH) Epidemiological Catchment Area (ECA) study in the US[1]. Many theories have been given for this co-morbidity and *Quello* et al put them into 3 main categories: disorder fostering disorder, overlapping neurobiology through kindling and diagnostic confounding[2]. They explained disorder fostering disorder as persons with mood disorder self-medicating for relief of their symptoms and chronic drug abuse unmasking subclinical mood disorder. Thus, persons with mania will take opioids which depresses and those with depression will take stimulants like cocaine.

A disorder fostering disorder may also be explained by substance use disorder being a sequela of mood disorder, particularly, bipolar disorder in the manic phase. One feature of mania is impulsivity[3] and this leads them to undertake risky ventures which include taking of substances of abuse. The impulsivity makes them try substances available to them and not necessarily stimulant or depressant as all substances of abuse give some euphoria and this is what they seek. There is not much published data on the drug seeking behaviour of persons with bipolar disorder.

It is important to establish a primary diagnosis of bipolar disorder and the substance use disorder as a "complication" of the mood disorder rather than another condition starting de novo. This is more so as bipolar disorder has been shown to be missed in up to 70% of cases, and in some instances up to 10 years, including periods of seeing a psychiatrist[4]. Once the primary diagnosis is missed and the focus is turned on substance use disorder, the patient gets an ineffective treatment moving from one rehabilitation centre to another in search of treatment for the "wrong" disorder.

The converse is even more complex and confounding in nature when a person with substance use disorder presents with symptoms of mood disorder. There is reported over-diagnosis of mood disorder among persons with substance use disorder as many of them will present with mood symptoms[5]. Over-reliance on the presenting symptoms to make a diagnosis is usually what will lead to a misdiagnosis. A careful longitudinal history

Corresponding Author: Dr. Eugene K. Dordoye
University of Health and Allied Sciences, PMB 31, Ho, Volta Region, Ghana.
Email Address: edordoye@uhas.edu.gh
Conflict of Interest: None Declared

is necessary to make the right diagnosis of a primary substance use disorder presenting with a mood episode.

It is essential the correct diagnosis out of a possible three; co-morbid bipolar disorder with substance use disorder, substance induced mood disorder or bipolar disorder using substances, is made as each of them is managed significantly differently[1]. While the person with outright co-morbid conditions will require a lifetime management of both conditions, the other two will require management of only the primary disorder. Again, substance use disorder is managed mainly by psychotherapy in Ghana beyond the initial detoxification, while bipolar disorder will require a lifetime pharmacotherapy treatment[6].

In areas, where screening of substances of abuse are not common and clinical history is largely used to make diagnosis, care needs to be taken to avoid the over-diagnosis of substance induced disorders which require the substance of abuse to be necessary and sufficient to cause the presenting symptoms[7]. Even where the screening is available, they tend to only detect the presence or not of the substance of abuse and the sheer presence of a substance of abuse is not enough to make a diagnosis of substance induced disorder.

Case report

Ms. KK is a 28-year-old human resources manager who divorced a year prior to presentation. She had been unemployed for some 5 months at presentation and was living with parents in the city. She was referred to our facility as cannabis induced psychosis for detoxification and subsequent management at a rehabilitation centre. Both parents are highly educated health professionals and were very concerned. They initially discussed how we will manage her rehabilitation in a phone conversation. The father followed up later to the facility alone and arranged for patient to be seen alone later.

Ms. KK had over an hour interview with the consultant psychiatrist on their first encounter, but subsequent visits were much shorter. She presented with sleep difficulties, gregariousness and resumption of smoking marijuana for at least two months. She admitted meeting many people at her instance but explains it was because of her "big plans" to transform the mental health system in Ghana. She explained she could change things pretty quick with her experience from living abroad. Even though she admitted smoking marijuana on a few occasions, she claimed it was not regular and occurred once or twice every 2 - 3 weeks. She was sleeping less than 4 hours every night but attributed that to her courses she was taking online and the need to stay awake and work on her many projects. Moreover, her parents also worked a lot at night and dawn so she explained it away as just a family culture. The parents admitted waking up early to read themselves and confirmed her online courses as well.

Ms. KK admitted to suicidal ideation as she sometimes felt like walking up a cliff and throwing herself down. She explained her heightened eroticism during this period as that is how she has always been but unnoticed by people close to her and was now discovering her sexuality. Though mother says she is the loudest among siblings, Ms. KK seemed to be talking a bit too much. Her speech was understandable, but they did not see the relevance of some of the themes she talked about. She visited many people and sometimes lied about who she was visiting claiming they were close relatives when they were not. For instance, she told her psychiatrist she was visiting an uncle in the same city only to realise she had no other relatives in the city. The father said she has once admitted she was a "pathological liar" and smoked marijuana. This is what led parents to believe she might be smoking too much and possibly will need a rehabilitation.

Ms. KK was admitted to a psychiatry department of a hospital abroad and managed for psychosis on risperidone, an antipsychotic used as adjunctive therapy to mood stabilisers for mania[8]. She described periods when she felt lonely in her one-year marriage as husband was usually not home. She recalls an argument with her then husband (among a series of arguments before) directly led to her admission. She was discharged after less than a week in hospital on same medication but had stopped taking it for some 6 months before presentation. There is no known family history of any mental illness.

On presentation, Ms. KK looked appropriately dressed and well kempt. She was disinhibited and talked a lot. Most of her speech was about her great plans to improve our department as an HR consultant. She denied any special powers, wealth or abilities when asked directly though she admitted sleeping very little to work on her many plans. She had no hallucinations. Her concentration was impaired as she made 5 mistakes with the serial 7 and lasted more than a minute. She was however well oriented in time, place and person, had good attention span, intact memory, good judgment and intact abstraction. She admitted she had a problem related to mental ill-health and was ready to take medication prescribed for her as long as it will get her better.

Ms. KK was managed for a bipolar disorder, manic episode with mild cannabis use disorder on oral aripiprazole and lamotrigine. This improved her sleep which she liked, but stopped taking the medications once she could sleep better. A few weeks after non-compliance almost every symptom she presented with re-appeared and this time was put on long acting paliperidone. Paliperidone is not easily accessible in Ghana due to cost. A monthly maintenance cost in Ghana is about same as how much a qualified nurse will earn in a month. This is not covered by national health insurance and patients will have to pay out of pocket. Her parents offered to pay for the cost of her treatment.

Ms. KK improved on the long-acting second generation antipsychotic and quit smoking marijuana. Parents admitted she talked less and slept better.

Discussion

Ms. KK presented with symptoms of mania and could be diagnosed bipolar disorder. A similar manic episode most likely necessitated her hospital admission a year earlier and also led to her divorce. The impulsivity of her manic episode led her to resume the smoking of marijuana which was not regular. A primary diagnosis of bipolar disorder with non-compliance to oral medication required we use long-acting second-generation antipsychotic for her treatment in addition to motivational interviewing for cannabis use disorder. When the primary mood disorder was controlled, she quit the smoking of marijuana and had remorse for smoking.

Substance induced disorder diagnosis can only be made when symptoms on presentation can be sufficiently explained by the substance of abuse. Just the use of substance is not enough to make a diagnosis of substance induced disorder. Patients using substances of abuse who present with mood symptoms need a "cool off period" when substance is not used and observed for resolution of mood symptoms. If mood symptoms persist after detoxification, a co-morbid diagnosis can be considered if the history confirms the diagnosis of both.

Diagnosis of substance use disorder is still largely by clinical history and not just the presence of substances in body fluids. The presence of substance or the screen is important for the follow up and monitoring of substance use and not necessarily for diagnosis. Non-disclosure of extent of substance use is a symptom of substance use disorder and care need to be taken when taking history of drug habits for the correct diagnosis. Skilled motivational interviewing is necessary for finding the fine balance between how much substance patient is using and how much they are prepared to disclose in the history.

Nonetheless, it is crucial to make the right diagnosis for effective management as the wrong diagnosis worsens the prognosis of either condition in the patient.

Conclusion

The co-morbidity of bipolar disorder and substance use disorder poses significant diagnostic challenge as one can lead to symptoms of the other. In spite of this difficulty, it is important for clinicians to methodically tease out which is the primary diagnosis as the two are managed significantly differently. The effective treatment of the primary mood disorder can alleviate the symptoms of the co-occurring substance use disorder.

Recommendation

It is important when seeing patients with comorbidity of mood disorder and substance use disorder, the substance use is quantified by the determination of the frequency and amount used to know which of them is the primary disorder. For substance induced mood disorder the substance of abuse should be necessary and sufficient to cause the disorder and treatment should be focused on the substance use disorder. Similarly, if the mood disorder precedes the use of substances which is not in significant amounts to cause a mood disorder, then the focus should be on the mood disorder which will require medication.

References

1. DelBello MP, Strkowski S. Understanding the problem of co-occuring mood and substance use disorders. J J Westermeyer, RD Weiss & DM Ziedonis (Orgs), Integrated treatment for mood and substance use disorders. 2003:17-41.
2. Quello S, Brady K, Sonne S. Mood Disorders and Substance Use Disorder: A Complex Comorbidity. Science & Practice Perspectives. 2005;3:13-21.
3. Swann AC, Dougherty DM, Pazzaglia PJ, Pham M, Moeller FG. Impulsivity: a link between bipolar disorder and substance abuse. *Bipolar disorders*. 2004;6:204-212.
4. Singh T, Rajput M. Misdiagnosis of bipolar disorder. *Psychiatry (Edgmont)*. 2006;3:57.
5. Goldberg JF, Garno JL, Callahan AM, Kearns DL, Kerner B, Ackerman SH. Overdiagnosis of bipolar disorder among substance use disorder inpatients with mood instability. *J Clin Psychiatry*. 2008;69:1751-1757.
6. Fountoulakis KN, Grunze H, Vieta E, Young A, Yatham L, Blier P, et al. The International College of Neuro-Psychopharmacology (CINP) Treatment Guidelines for Bipolar Disorder in Adults (CINP-BD-2017), Part 3: The Clinical Guidelines. *Int J Neuropsychopharmacol*. 2017;20:180-195.
7. Starzer MSK, Nordentoft M, Hjorthoj C. Rates and Predictors of Conversion to Schizophrenia or Bipolar Disorder Following Substance-Induced Psychosis. *Am J Psychiatry*. 2018;175:343-350.
8. Yatham LN, Beaulieu S, Schaffer A, Kauer-Sant'Anna M, Kapczinski F, Lafer B, et al. Optimal duration of risperidone or olanzapine adjunctive therapy to mood stabilizer following remission of a manic episode: A CANMAT randomized double-blind trial. *Mol Psychiatry*. 2016;21:1050-1056.