



Abstract

Case Background

There is a reported 48.8 million case of bipolar disorder (BD) world-wide.16 It can also be one of the most challenging disorders to manage clinically as patients often have poor medical compliance and numerous relapses throughout their lifetime. The etiology of this illness is still poorly understood, but it is recognized to compromise both genetic and environmental factors. Regarding the latter, abuse and instability in childhood and adolescence was reported as an important area of consideration in regard to the development and prognosis of bipolar disorder.

We report here the case of a female who exemplifies the significance of early childhood experience in this disorder.

Case Presentation

Isabelle is a 21 year old, female, with a background history of bipolar disorder. She presented to the Cork University Hospital accident and emergency 2 weeks after discharge after a 4 week admission for a depressive episode. Isabelle was referred from the home-based team with an acute episode of mania and was detained involuntarily under the Mental Health Act. Her history is significant for childhood neglect, physical, emotional and sexual abuse, along with multiple foster care placements. She was managed as an inpatient with antipsychotics and a mood stabilizer before being discharged after a lengthy, arduous, admission.

Conclusion

Childhood trauma is an important consideration in BD. Therefore, practitioner awareness of the role of such trauma with regard to its etiology and prognosis is of great importance. It is also essential to the practice of preventive medicine.

Patient Consent Obtained: Yes

Case Report

Introduction

Bipolar disorder (BD) is a psychiatric illness associated with episodes of mania or hypomania and depression. The etiology of the illness has been described as being associated with the complex interplay of biopsychosocial factors. 3

BD has a poor prognosis. There is a 15% morality rate by suicide and manic relapse within 5 years is reported to be as high as 90%.1 Many patients who have the disorder also report a history of childhood trauma. In fact, it is more prevalent in BD patients than the general populace. 3 Early trauma is also associated with an earlier onset of illness.4 Therefore, it is vital to understand the significance of such personal history in regard to its biopsychosocial etiology and long-term prognosis.

Case Presentation

Isabelle is a 21 year old female that presented to the emergency department with an acute manic episode. She had been discharged from the mental health unit 2 weeks prior for a depressive episode. On her last admission she was involuntarily admitted for 4 weeks.

Isabelle now re-presented with a two week history of risky behavior including late night excursions, cannabis use, and increased activity. During this time she was contacted by the outpatient home-based team after missing her routine follow-up. She was reportedly aggressive on the phone. In person they found her hostile and verbally abusive, with pressured speech, and a flight of ideas. She also believed that her family had stolen her identity and that her mother was not her real mother. Isabelle insisted that she not be called by her given name. Although an attempt to further elucidate these delusions was made. Isabelle did not want to speak further on the matter. She was involuntarily admitted under the Mental Health Act 2001.

Although Isabelle was only given a formal diagnosis of BD recently her history was extensive. Isabelle had 3 admissions within the past year. Each presentation (whether manic or depressive) was similar in nature and there was an extensive history of poor compliance. Her medications included Quetiapine, Haloperidol, Zopiclone, and Lithium. Although she had shown some success with Lithium she admitted to its discontinuation due to weight gain. Furthermore, there had always been challenges with her inpatient management as she often became volatile with staff, refused treatment, and showed an overall lack of insight into her condition. Discharge was also difficult as she reported anxiety with living independently and often preferred the security of in-patient housi ng.

Isabelle was born to an adolescent mother and absent father. She was later removed from her mother owing to neglect and physical abuse attributable to her mother's alcoholism, cocaine addiction and personal BD history. Isabelle was subsequently cared for by her grandparent until they passed. She was consequently placed in foster care where she reported emotional and physical abuse.

Isabelle described her childhood as fraught with antisocial behavior. It was because of her volatile behavior, and repeated incidents of physical altercations in school, that she was required to see a psychologist. There was some uncertainty regarding if she was diagnosed with a borderline personality disorder at his time but Isabelle disputed this and there was no formal record of diagnosis. She later left school early and availed of socially subsidized job skills training.

Isabelle also reported numerous volatile relationships and precarious housing situations, including being homeless for some time. Her present housing was socially provided.. A previous relationship, with someone known to her, also resulted in sexual abuse.

When asked about her premorbid personality she described herself as someone who always had difficulty regulating emotions. She reported easily becoming aggressive/agitated, anxious, and having difficulty handling stress and

UCC Student Medical Journal

disappointment. Her poor coping was also illustrated by years of nicotine, cannabis, and cocaine use, along with a history of anorexia nervosa and deliberate self-harm.

Her mental state exam demonstrated a wellgroomed female, wearing heavy makeup, false nails and lashes. Her mood was mildly elated. Her manner was friendly with staff and other residents. During the interview she appeared restless often pacing around the room. Thought, affect, and cognition was appropriate. The remainder of her history and examination was unremarkable.

Discussion

It is important to firstly recognize the social determinants of health. In particular, childhood trauma can have a significant impact on one's wellbeing and research indicates a history of early trauma in 30-50% of the BD population.3

In Isabelle's case, her childhood history included neglect and physical abuse by an alcoholic biological mother. The patient also reported emotional abuse in various foster homes before she found a more permanent placement.

Research shows that maternal or paternal loss before the age of 5 also increases the risk of BD development by 4 and 2.4 times respectively.5 Not only did Isabelle not know her father, but she was also separated from her mother. Furthermore, her subsequent caregiver passed away before 5 years of age.

Animal studies have shown that early stress and poor relationships between parents and offspring contribute to poor coping and inappropriate behaviors later on in life.3 Maternal care has also been shown to influence the hypothalamic-pituitary-adrenal (HPA) axis in rats.6 The HPA axis is vital in emotion and stress regulation. Specifically, maternal care has been shown to have an influence on glucocorticoid receptor expression. A decrease in glucocorticoid receptors has been noted in humans with various psychological conditions.7 Similar epigenetic changes have also been noted to occur in people who die by suicide and have a history of child abuse; as opposed to those without such a history.7

This points to the possible etiology of the dysregulation seen in BD. Isabelle would become easily anxious about minor stressors and her mood rapidly fluctuated as well. For example, she would be very aggressive with staff and then shortly later apologize and be amiable with them.

Secondly, one needs to recognize trauma in regard to its influence on the patients' longterm outcomes. As with any illness, one's ability to cope in society will influence future outcomes and how society views that illness. It will also contribute to the overall healthcare burden regardless of the etiology of the disease.

Research indicates that early trauma, or posttraumatic stress disorder, can be a poor prognostic factor in BD management.8 It is also related to a greater severity of psychotic and depressive episodes.8 Therefore, when patients have acute exacerbations, they present with more life-threatening symptomology resulting in a greater strain on healthcare resources.

Literature also indicates that those with difficult upbringings and BD have lower overall intelligence quotient scores.9 There is also evidence that they have lower performance in attention, verbal memory, and executive functioning testing. 10 These findings suggest that childhood trauma negatively influences one's cognitive capabilities and by long-term educational and career outcomes. In fact, Isabelle dropped out of school and never pursued higher education which limited her future prospects. This led to her becoming homeless at one point. Despite currently being employed she still relies on disability and aftercare to augment expenditures. Even a recent venture into further skills training was halted due to her hospitalizations.

Childhood trauma is associated with high-

Case Report

er incidences of hallucinations, mania, and impulsivity in BD.12 Quicker cycling between manic and depressive episodes is noted for those with histories of physical and sexual abuse.13 This is of importance as the frequent occurrence of these symptoms inhibit recovery and daily functioning. Furthermore, rapid cycling is more difficult to treat. It also limits integration into society if one is continuously fluctuating between two extremes.

Higher levels of impulsivity associated with these BD patients is also associated with alcohol and cannabis abuse. 14 This can introduce the complex implications of drug use on daily life. Not only can its use further contribute to the instability of the patient's mental health, it can impact all areas of life. Drug use effects relationships with others, finances, and forensic history. It results in further issues of addiction, dependence, and can promote poorer coping mechanisms as one might choose to mitigate stressors with recreational drugs. As BD patients already have difficulty managing stress, impulsivity, and mood, adding these drugs can have major consequences.

Additionally, patients with greater levels of trauma are also more likely to have "increased affective lability and affect intensity".11 In particular it is correlated with aggression in BD patients.15 Aggression was prominent in Isabelle's presentation which posed additional challenges to staff. Not being able to establish appropriate connections with others would also inhibit a patient's integration into society, damage relationships and affect their long-term outcomes.

Whether cognitive ability or social factors are involved, one can recognize a complex interplay of factors shaping the futures of these patients. This intricate web of factors ultimately culminates in increased hospital admissions and poorer outcomes. 11 Such patients also have a worse response to maintenance medications and a higher incidence of comorbid conditions further complicating treatment. 8,10

Conclusion

It is of utmost importance for physicians to be vigilant of childhood abuse. Discussion around recognizing early trauma is vital to prompt intervention.

Consent

Verbal consent was obtained for the use of her history for educational purposes.

Conflicts of Interest

No conflicts of interest.

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