Hassle Faced with Induced Mania in Elderly Female While Treating for OC Symptoms. A Case Report.

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Case Report

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Abstract

Background- Obsessive-compulsive disorder (OCD) is one of the most frequently associated comorbidities in bipolar disorder (BD). While this presents a challenge in understanding the phenomenology and also the treatment aspect of co occurrence of mania with OCD.

Case history- The index case is of an elderly female who presented with OC symptoms and while on treatment had mania episodes. The mania episodes presented challenges while managing underlying OC symptoms.

Conclusion- The common neurobiological mechanism for the co-morbid illness and treatment lacunae are discussed. The serotonin, dopamine, and glutamate having important role in BD-OCD were evaluated to understand the neurobiological basis of BD-OCD. The index case presented with the challenge of understanding the phenomenology of the illness but also presented with opportunity to learn and successfully manage patients with such co-morbidity. Divalproex and risperidone combo was found to be effective in controlling mania in OCD patients.

Introduction:

Obsessive-compulsive disorder (OCD) is one of the most frequently associated comorbidities in bipolar disorder (BD).[1] A lot of literature is available about this association but lesser studies available on neurobiology and treatment aspects of this co-morbidity.It is a real challenge for psychiatrists to manage patients with BD-OCD comorbidity because stabilizing the (manic episode) mood and management of OCD should go hand in hand. However, the serotonin reuptake inhibitors (SRIs) which are the first-line treatment for OCD can induce manic states in BD, so titration needs careful supervision.

Case Report:

Patient x, 51 years old female, with well-adjusted premorbid with past history of treated tuberculosis in 1982, presented with the history of OC symptoms in form of excessive cleanliness and repetitive hand washing on regular treatment since 2005. She used to wash hands 15 to 20 times in a day, the patient would have repetitive checking, increased washing of utensils, she would not allow any one to touch her, and she would wash her hands every time before putting any spice in vegetable and would be unable to cook due to excessive time spent in washing hands. The patient would demarcate her bedside and never allowed anyone to sit or lay on that side. When the patient was not able to fulfil the obsession with the motor act of compulsion, she would have anxiety symptoms with associated depressive symptoms. She was started on clomipramine up to 150 mg along with fluvoxamine up to 300 mg in 2005. The patient had response with treatment of compulsions and obsessions but on and off anxiety would persist. While on the treatment she had manic episodes in 2012 and 2019 with the duration of 1–2 months and were treated. During 2012 along with the management of OCD she was also started on risperidone 1 mg bd orally which was step wise titrated to a cumulative dose of 6 mg and then progressively tapered as the

patient improved. In 2019 the severity of episode was equivalent to a hypo manic episode with prominent features of decreased need for sleep and excessive talkativeness. The attendants being aware of the condition sought immediate consultation therefore use of clonazepam 0.5 mg as an adjuvant agent and tapering of fluvoxamine to 150 mg sufficed. Currently she presented with c/o increased talkativeness, suspiciousness, decreased sleep, aggressive and abusive behavior since the duration of 2.5 months. The illness had a sudden onset with the continuous course. She had associated c/o increased spending, overfamiliarity, aggression and use of abusive language towards family members as well.

On MSE, there was increased rate/flow/volume and amount with decreased reaction time. Rapport was established with overfamiliarity. There was delusion of reference and persecution in thought content. Circumstantiality was also present.

The patient was started on divalproex sodium 500 mg BD, risperidone 1 mg BD, clonazepam 0.5 mg tds while the SSRI and TCA antidepressant medications were immediately stopped in lieu of manic symptoms.

Discussion

The index presented with the challenge of understanding the basis of BD with OCD and also the treatment plan which could be followed for such a patient. A lot many theoretical work has been done on understanding the neuro-biological basis of the illness, but the treatment still has many lacunae to be taken care of while treating the illness.

Pathophysiology Of Bd With Ocd

The OCD symptoms usually occurs during the depressive episodes or during the intervals between episodes of depressive or manic symptoms. The cyclic nature of OC symptoms with bipolarity shares some common biological mechanisms between the two disorders. A linkage study found that family history of mood disorder has more predisposition to BD with OCD than OCD alone. A preliminary molecular genetic study which found that hyperpolarization activated cyclic nucleotide-gated channel 4 (HCN4) is a common susceptible locus for both mood disorders and OCD.[3] In support of this hypothesis, a study using Positron Emission Tomography (PET) found that in untreated persons with BD the serotonin-transporter binding potential in the insular and dorsal cingulate cortex was higher among BD patients with pathological obsessions and compulsions than among BD patients without such symptoms, theoretically increasing the chances of induction of mania with use of SSRI in OCD.[2] Magnetic resonance spectroscopy permits the investigation of levels of glutamate and glutamine (together known as “Glx”) in specific brain regions in vivo. Increased Glx in left dorsolateral PFC (DLPFC), cingulated gyrus in mania and in rapid cyclers are documented. Higher glutamate level in cerebrospinal fluid (CSF) of patients with OCD is also reported, which further strengthens the basis of common pathogenesis of the illness. Increased functional dopamine is postulated as the mechanism underlying mania and BD depression. Increased caudate D2 receptor density was observed in psychotic BD patients

compared to healthy individuals. Obsessive behaviors are also associated with dysfunction of the dopaminergic receptors, favouring the common co-relation between BA and OCD. It is proposed that ritual behaviors are due to hyperdopaminergic state in nucleus accumbens and right PFC. These findings suggest that the serotonin, dopamine, and glutamate may have important role in BD-OCD though not many studies evaluated the neurobiological basis of BD-OCD.[4]

Treatment Options

During an acute manic or a mixed episode, the treatment of mood symptoms takes precedence and hence the treatment of OCD can be deferred unless it is very severe. Though lithium in Bipolar disorder with OCD has less precedence, there is a recent case report of successful use of divalproex in the management BD II and OCD.[5,6]

There are no open-label or controlled trials of typical or atypical antipsychotic monotherapy demonstrating efficacy in pure OCD. Among antipsychotics, Risperidone was found to be effective in a recent meta-analysis of double-blind, placebo-controlled trials (DBPCTs) of atypical antipsychotic augmentation in treatment-refractory OCD.[4] Raja and Azzoni reported four cases of mania/mixed state with OCD improved with a combination of valproate (750–900 mg/day) and risperidone (2–4 mg/day). This may be suggestive of anti-obsessive property of low-dose risperidone just like in OCD.[7,8,9]

While it is a dilemma of treating OCD along with Co-morbid Bipolar Disorder the pharmacological options need to be clearly weighed and hence a careful decision is to be made. Treatment of comorbid BD with OCD is a huge challenge for clinicians as the management of one disorder may worsen the other and researches into the treatment aspects of this entity is sparse. Mood stabilizers along with or with risperdone, olanzapine-SSRI/clomipramine combination can be used to treat OCD in BD.

In our index case patient was treated with divalproex 500 mg and risperidone 2 mg which showed wonderful results in the manic phase of bipolar disorder with co-morbid obsessive compulsive disorder. There was marked improvement in manic symptoms and the patient is still on follow up. Young Mania Rating Scale scores showed decrease from 38 on start of treatment, 24 at 2 weeks, 16 on follow up after 4 weeks and 6 on follow up at 6 weeks

Conclusion

The index case presented with the challenge of understanding the phenomenology of the illness but also presented with opportunity to learn and successfully manage patients with such co-morbidity. It also helped in forming an understanding of OCD and regular monitoring of SSRI so that co-morbid BD may not precipitate mania state and hence doesn’t complicate the management plan.

Abbreviations

OCD- Obsessive Compulsive Disorder

OC- Obsessive Compulsive

BD- Bipolar disorder

SSRI- Selective Serotonin Reuptake Inhibitor

TCA- Tricyclic Antidepressants

HCN4- Hyperpolarization Activated Cyclic Nucleotide Gated Channel 4

PET- Positron Emission Tomography

Glx- Glutamine

DLPFC- Dorso-lateral Prefrontal Cortex

CSF- Cerebro-Spinal Fluid

PFC- Pre-Frontal Cortex

DBPCT- Double Blind Placebo Controlled Trails

Declarations

Ethical Approval- The ethics committee of MMIMSR Mullana, Ambala, Haryana, India, waived this requirement.

Consent of publication- The patient was informed and consent taken for publication.

Availability of data and materials- The patient was admitted in IPD of Psychiatry department of MMIMSR and hence the data was collected.

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References

1. Amerio A, Odone A, Liapis CC, Ghaemi SN. Diagnostic validity of comorbid bipolar disorder and obsessive-compulsive disorder: A systematic review. Acta Psychiatr Scand. 2014;129:343–58.
2. Cannon DM, Ichise M, Fromm SJ, Nugent AC, Rollis D, Gandhi SK, et al. Serotonin transporter binding in bipolar disorder assessed using [11C] DASB and positron emission tomography. Biol Psychiatry. 2006;60:207–17.
3. Matsumoto R, Ichise M, Ito H, Ando T, Takahashi H, Ikoma Y, et al. Reduced serotonin transporter binding in the insular cortex in patients with obsessive-compulsive disorder: A [11C] DASB PET study. Neuroimage. 2010;49:121–6.
4. Koo MS, Kim EJ, Roh D, Kim CH. Role of dopamine in the pathophysiology and treatment of obsessive-compulsive disorder. Expert Rev Neurother. 2010;10:275–90.
5. Spies M, Knudsen GM, Lanzenberger R, Kasper S. The serotonin transporter in psychiatric disorders: Insights from PET imaging. Lancet Psychiatry. 2015;2:743–55.
6. Yatham LN, Kennedy SH, Schaffer A, Parikh SV, Beaulieu S, O'Donovan C, et al. Canadian network for mood and anxiety treatments (CANMAT) and international society for bipolar disorders (ISBD) collaborative update of CANMAT guidelines for the management of patients with bipolar disorder: Update 2009. Bipolar Disord. 2009;11:225–55.
7. Amerio A, Stubbs B, Odone A, Tonna M, Marchesi C, Ghaemi SN. The prevalence and predictors of comorbid bipolar disorder and obsessive-compulsive disorder: A systematic review and meta-analysis. J Affect Disord. 2015;186:99–109.
8. Veale D, Miles S, Smallcombe N, Ghezai H, Goldacre B, Hodsoll J, et al. Atypical antipsychotic augmentation in SSRI treatment refractory obsessive-compulsive disorder: A systematic review and meta-analysis. BMC Psychiatry. 2014;14:317.
9. Kazhungil F, Mohandas E. Management of obsessive-compulsive disorder comorbid with bipolar disorder. Indian J Psychiatry. 2016;58(3):259–69.