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RESEARCH ARTICLE

CARIPRAZINE AUGMENTATION TO SSRIS IN TREATING A CASE OF TREATMENT-RESISTANT OBSESSIVE-COMPULSIVE DISORDER IN AN ADOLESCENT FEMALE

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Abstract

Introduction: Obsessive-Compulsive Disorder (OCD) affects 1-3% of the population and often requires a combination of selective serotonin reuptake inhibitors and cognitive-behavioral therapy (CBT). However, 40-60% of patients remain treatment-resistant. Atypical antipsychotics, including cariprazine, have shown promise as adjunctive treatments.

Case Presentation: An adolescent female with severe OCD, whose symptoms worsened post-COVID, initially received 50 mg of fluoxetine and CBT, with only mild improvement. At the presentation, she exhibited severe compulsions and dehydration due to her refusal to drink. Her Yale-Brown Obsessive Compulsive Scale (Y-BOCS) score was 31. Treatment was adjusted to 1.5 mg of cariprazine daily and switched to sertraline to 200 mg. By the nine-month follow-up, her Y-BOCS score decreased to 6, and she showed full functional recovery with no side effects from the treatment combination.

Discussion: Adding cariprazine to sertraline significantly improved symptoms of treatment-resistant OCD. This case supports the potential efficacy of cariprazine as an adjunctive therapy. Further research is needed to confirm these findings and evaluate the broader applicability of this approach.

Conclusion: The combination of cariprazine and sertraline led to substantial symptom improvement and functional recovery in this adolescent OCD patient. Continued investigation into such treatments is essential for enhancing outcomes in treatment-resistant OCD.

Introduction:-

Obsessive-compulsive disorder (OCD) is a chronic and disabling condition characterized by obsessions (intrusive and persistent thoughts or images) and compulsions (repetitive behaviors). It affects around 1-3% of the population of children and adults(1). It often presents during childhood or adolescence and can significantly impact academic performance, social interactions, and overall quality of life. The gold standard current treatment for OCD is a combination of selective serotonin reuptake inhibitors (SSRIs) and cognitive-behavioral therapy (CBT), particularly Exposure and Response Prevention (ERP) therapy. While these treatments are effective for many patients and can significantly improve quality of life, 40-60% of patients still remain treatment-resistant(2). The ramifications of untreated OCD can be very severe, leading to chronic and debilitating psychological distress and considerable impairment in personal, academic, and occupational domains, potentially leading to comorbid conditions such as depression and anxiety disorders and an overall significant decrease in the quality of life(3). Individuals with OCD

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face a considerable risk of suicidal behavior. Around 50% of those with the disorder experience suicidal ideation, and approximately 13% attempt suicide over the course of their lifetime.(4)

Considerable research has been conducted on the management of treatment resistant OCD, particularly regarding the efficacy of atypical antipsychotics as augmenting agents in conjunction with SSRIs for treatment-resistant cases. Among these, risperidone and aripiprazole have demonstrated the most promising results(5).This warrants further investigation into the use of other atypical antipsychotics for the treatment of OCD.

Cariprazine is a third-generation antipsychotic medication that is approved for the treatment of schizophrenia and bipolar disorder. It is a partial agonist at the dopamine D2 and D3 receptors, with preferential binding to D3, as well as a serotonin 5HT1A partial agonist and 5HT2A antagonist(6). It has recently been approved as an adjunctive treatment of major depressive disorder in patients with inadequate response to antidepressant therapy.

This is a case report discussing the use of cariprazine as an add-on to the selective serotonin reuptake inhibitor (SSRI) sertraline in managing a severe case of adolescent OCD.

Case Presentation

A female in her late teens presented at our community psychiatry clinic with severe OCD. Her psychiatric history began at 14 years of age with the development of social and performance anxiety. Symptoms intensified post-COVID, with significant fears of contamination, feelings of responsibility for her mother's COVID-19 infection, and concerns about future harm due to her actions.The patient's academic performance experienced a decline concurrent with her challenges in maintaining focus, leading to a heightened state of isolation and withdrawal. Approximately a year prior to the presentation, she began experiencing obsessive and intrusive thoughts, initially centered on fears of germs and contamination, which later evolved to include taboo thoughts related to sex, religion, harm, and aggression towards herself and others. Compulsions included excessive cleaning, handwashing, precise arranging of items, and compulsive counting. Six months prior to presentation, she received a psychiatric evaluation, during which she was prescribed fluoxetine 50 mg daily and initiated on cognitive-behavioral therapy (CBT). She initially reported mild improvements in her symptoms. However, these symptoms subsequently worsened over time. She was later switched to sertraline 100 mg. Despite increasing doses, the patient showed no further improvement. The patient became noncompliant before presenting to the clinic. During her presentation at the clinic, severe obsessive-compulsive symptoms were noted. Her fear of contamination had intensified, resulting in prolonged periods spent showering She also considered her saliva contaminated, repeatedly spitting and coughing into a tissue during the visit. The refusal to drink and repeated spitting resulted in severe dehydration, requiring intravenous fluid hydration.

TBoth parents described her as an introvert with low self-esteem. The family history revealed that her father had a generalized anxiety disorder, which was successfully treated with escitalopram. There were no abnormal movements during the examination, and her speech was difficult to understand due to continuous drooling and spitting. The patient described her mood as anxious, and this was consistent with her demeanor. Her thought process was non-linear and illogical, mainly focused on her obsessions, with no evidence of perceptual disturbances. She had insight into the irrational nature of her obsessions, but felt unable to control them.he individual harbored a belief that abstaining from swallowing saliva was the sole means of preserving her and her family. This conviction coincided with the onset of depressive mood and anxiety. She attained a score of 31 on the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), with 16 points on the obsessions subscale and 15 on the compulsions subscale. Her PANSS score of 85 denoted a state of moderate psychosis.

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The patient's treatment began with an increase in the dose of sertraline from 100mg to 200mg daily, along with an unspecified dose of risperidone. At the two-week follow-up, there was a slight improvement in the patient's condition, but she continued to display compulsive behavior and developed delusions about her family trying to harm her. Her YBCOS score was 28. The patient was non-compliant with the antipsychotic medication, as it made

her feel tired. Consequently, she was switched to aripiprazole at an unspecified dose. By the four-week follow-up, her compulsions had reduced, and her YBCOS score was 24; however, she still exhibited tangential thoughts and continued to have delusions about saving her family by spitting in a cup. The patient remained noncompliant with aripiprazole, as she felt restless after taking it.

After exhibiting adverse reactions to various antipsychotic medications, the patient was transitioned to cariprazine at an undisclosed dosage. Throughout the 6th-week follow-up, there was a progressive improvement, reflected by a decrease in the YBCOS score to 16. However, residual symptoms persisted, resulting in subsequent scores of 14 and 11. At the five-month mark, the patient's sertraline dosage was elevated to 250 mg, and cariprazine was adjusted to 3 mg. Subsequently, at the nine-month follow-up, the patient's Y-BOCS score had reduced to 6 points, while the PANSS score had diminished to 28.

The patient's condition stabilized and exhibited complete functional recuperation, with the patient reporting no disruption from OCD symptoms in daily tasks and denying any signs of psychosis. The patient efficiently reinstated regular academic and social activities. The cariprazine dosage was gradually lessened to 1.5 mg, while the sertraline dosage was tapered to 150 mg. The combined use of sertraline and cariprazine did not produce any adverse effects, allowing the patient to remain in remission..

Discussion:-

This case highlights the complexity of treating severe OCD in an adolescent patient, particularly when standard treatment options provide limited relief. Pharmacological treatment of OCD plays a crucial role, especially when combined with cognitive-behavioral therapy (CBT). Selective serotonin-reuptake inhibitors (SSRIs) are the first-line treatment but have only shown partial improvement in symptoms in this case. Here, we combined an SSRI (sertraline) with the third-generation atypical antipsychotic cariprazine. Cariprazine exerts partial agonism at dopamine D2/3 receptors and partial agonism at serotonin 5-HT1A receptors, as well as antagonism at 5HT2a and 5-HT2B receptors(6). Similarly, aripiprazole and risperidone target the dopamine D2 receptor and 5-HT2A receptors. Serotonin dysregulation has long been implicated in the pathophysiology of OCD, but there still is not a definite theory of pathogenesis. It seems plausible that cariprazine, as well as aripiprazole and risperidone, help OCD symptoms by modulating through their effect on serotonin receptors. It would be interesting to see how combination therapy with cariprazine performs compared to combination therapy with the other antipsychotics and elucidate how much the D3 receptor plays a role in bettering symptoms.

The use of cariprazine as an add-on to sertraline demonstrated significant improvement in our patients' symptoms compared to monotherapy with sertraline.There is limited literature on the use of cariprazine for OCD, however, a recent retrospective observational study has reported statistically significant findings, demonstrating the efficacy of cariprazine as an augmentation agent(5). This implicates cariprazine as a potential augmentation strategy in managing treatment-resistant OCD whose symptoms have failed to respond to standard SSRI plus CBT treatment. However, further research is necessary to establish its efficacy and safety in larger, randomized controlled trials.Given that cariprazine is primarily indicated for the treatment of bipolar disorder and schizophrenia, it would be valuable to investigate its efficacy and safety in patients with comorbid OCD and these psychotic disorders. Such studies could elucidate the potential benefits of cariprazine in this subset of patients and further refine its role in managing complex clinical presentations involving OCD and coexisting psychiatric conditions. This case underscores the need for continued investigation into novel therapeutic approaches to improve outcomes for patients with treatment-resistant OCD.

Conclusion:-

The combination of cariprazine and sertraline resulted in substantial improvement in OCD symptoms for this adolescent patient. This case adds to the growing evidence supporting the use of atypical antipsychotics and cariprazine, specifically as augmentation therapy in TR-OCD. Given the significant impact of OCD on adolescents' lives, exploring and validating effective treatment combinations is crucial. Regular follow-ups and careful monitoring are essential to ensure sustained improvement and address emerging symptoms. While this combination treatment was successful in our patient, it is crucial to acknowledge the limitations of concluding a single case report. Further, placebo-controlled studies are needed to strengthen evidence for cariprazine as an adjunct treatment in OCD.

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