



Risperidone Induced Obsessive Compulsive Disorder in a Patient with Schizophrenia: A Case Report

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I.

II. INTRODUCTION:

Obsessive compulsive disorder is characterised by two principle psychiatric components: obsession and compulsion. Obsessions are ideas, images or impulses that enter the individual's mind repeatedly in a stereotyped form. They are distressing and the suffered often tries to resist them unsuccessfully, they are the individual's own thoughts and are voluntary and repugnant. Compulsions are repetitive behaviours in response to the obsessive thought(s)

The occurrence of obsessive compulsive symptoms in schizophrenia ranges from 7.8 - 46.6%^[1]

Atypical antipsychotics are used as first line treatment in a variety of psychotic illnesses including schizophrenia. They have also enhanced the ratio of therapeutic efficacy to adverse effects as compared to the older antipsychotics available. ^[1]

Risperidone is a novel and atypical antipsychotic agent with dual antagonistic effect on 5-HT₂ and D₂ receptors ^[1] various studies suggest the augmentation of Serotoninreuptake inhibitors with Risperidone is effective in treatment refractory obsessive-compulsive disorder.

However, risperidone has also been implicated in the production of de-novo exacerbation of obsessive-compulsive symptoms.

This is a report of a case of Schizophrenia in which Risperidone was effective in the treatment of the psychotic symptoms but produced de-novo Obsessive-Compulsive symptoms.

III. CASE SUMMARY:

A 30 year old male, hotel owner, presented with premorbidly well-adjusted personality was brought with abnormal behaviour in the form of suspiciousness and anger outbursts since 6 years of continuous course. On

examination, he was seen talking to self, was suspicious of others, had anger outbursts and had poor self-care. Initial mental status examination also revealed first rank symptoms of commentary 3rd person auditory hallucinations, referential and persecutory delusions, with impaired personal and social judgement with a complete lack of insight. Nil contributory past and family history. Relevant investigations ruled out organic causes. He was diagnosed as a case of Paranoid Schizophrenia and treated with T. RISPERIDONE gradually hiked up to mg 6 per day in two divided doses and T. TRIHEXYPHENIDYL 4 mg per day in two divided doses. Patient showed gradual improvement in symptoms. At the end of 4 months of treatment, he appeared asymptomatic but during routine follow up, he reported of repeated and irresistible urge to buy new and multiple phones. He complaints that the thoughts are his own and regarded them as unwanted, irrational and distressing. He compulsively bought multiple phones worth 5-6 lakhs over a period of 4 weeks. Any attempts to resist buying new phones resulted in anxiety and restlessness. Patient was diagnosed as a case of Risperidone induced Obsessive Compulsive disorder. He was managed by gradual cross titration of RISPERIDONE with T. AMISULPRIDE up to 450 mg/ day and symptoms disappeared. Patient is maintaining well.

IV. DISCUSSION:

It is interesting to note that both schizophrenia and OCD share disturbance in serotonin/dopamine transmission patterns ^[1]

It is likely that risperidone because of its dual action on serotonin and dopamine receptors may lead to serotonin- dopamine imbalance thus leading to treatment emergent OCD.



Among SGAs, clozapine followed by olanzapine and risperidone have highest propensity to produce or exacerbate OC symptoms.^[2]

Risperidone-induced obsessive-compulsive symptoms appear to be dose-dependent and are probably produced by serotonergic-dopaminergic imbalance^[3]

The high serotonin (5TH2A) and dopamine (D2) receptor affinities of second generation antipsychotics alter the balance between dopaminergic activation and serotonergic inhibition.

5-HT_{2c} receptor antagonism has also been implicated because of the greater number of such receptors in the basal ganglia which has been linked to OCD in many imaging studies.^[4]

There is Genetic association of atypical antipsychotic induced OC symptoms with two glutamatergic system genes namely SLC1A1 (Kwon et al., 2009) and DLGAP3 (Ryu et al., 2011), which have been regarded as possible vulnerability genes for OCD.^[5]

V. CONCLUSION:

Risperidone has potential to produce or aggravate Obsessive compulsive symptoms that is probably produced by dopamine – serotonin imbalance.

Close monitoring of patients receiving risperidone, especially those vulnerable to develop OC symptoms is of value.

SGAs like Amisulpride and aripiprazole are found to be useful in the treatment of comorbid OCD in schizophrenia due to their negligible serotonergic properties^[6]

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