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Case report

Misdiagnosis and Exacerbation of Unusual Obsessive-compulsive Disorder Presentation with Risperidone and Clozapine in an Adolescent Girl – A Case Report

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A B S T R A C T

Obsessive-compulsive disorder (OCD) is a heterogenous disorder with different clinical presentations. The most common symptoms are those that involve contamination, possible harm, ordering/symmetry, aggressive/sexual/religious concerns and hoarding. A variety of less common symptoms have been described. Unusual OCD symptoms may lead to misdiagnosis, inappropriate treatmant with possible serious side effects. In this report we present a case of an adolescent girl in which unusual OCD presentation and symptoms were misinterpreted to represent psychosis and exacerbation of OCD symptoms with risperidone and clozapine treatmant. We discuss the possible pathophysiological mechanisms of OCD symptom exacerbation, clinical implications, and successful management of this case, with fluvoxamine therapy. This case may represent the first report of musical obsessions successfully managed with fluvoxamine therapy.

Key words: *obsessive-compulsive disorder, musical obsessions, clozapine, risperidone, fluvoxamine*

Introduction

Obsessive-compulsive disorder (OCD) is a heterogenous psychiatric disorder with different clinical presentations. The most common symptoms are those that involve contamination, possible harm, ordering/symmetry, aggressive/sexual/religious concerns and hoarding. A variety of less common symptoms have been described including unusual somatic, sensory, stereotypic, impulsive, interpersonal, abstract and musical symptoms[1]. Unusual OCD symptoms may lead to misdiagnosis and mistreatmant with possible serious side effects and a great impact on patient's prognosis.

We present a case of an adolescent girl in which unusual OCD presentation and symptoms were misinterpreted to represent psychosis and exacerbation of OCD symptoms during risperidone and clozapine treatment. We discuss the possible pathophysiological mechanisms of OCD symptom exacerbation, clinical implications, and successful management of this case with fluvoxamine treatment.

Case Report

At the age of 17 the patient presented in the adult outpatient psychiatric unit with intensive anxiety, insomnia, irritating thoughts running through her head, occasional depersonalization and derealization lasting for about a month. At the time of her first presentation the patient reported that the disturbing thoughts interfered with normal train of thought causing significant subjective distress and impairment in her daily activities and function. She continued to attend school, but her

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grades dropped significantly. The patient did not reveal the content of the thoughts at that time. There was no past, personal or family history of significance. She was diagnosed with acute psychosis by a general psychiatrist. Olanzapine treatment was started and titrated up to 20 mg/day, but discontinued after 6 weeks because of a weight gain of more than six kilograms and no improvement in the clinical picture. Risperidone was initiated and at the dosage of 6 mg/day six weeks later the patient reported frightening aggressive thoughts and sexual images. These symptoms were interpreted as psychotic features resistant to risperidone. Risperidone was withdrawn and haloperidole was administered. After 6 weeks of haloperidole treatment at the dose od 4 mg/day, the disturbing thoughts persisted, although their severity was attenuated. Because her symptoms were considered as resistant to both atypical and classical antipsychotics, it was decided to switch to clozapine treatment. After 6 weeks with 150 mg/day dosage of clozapine the patient started to complain of irritating sounds and music. Again, the patient did not explain this symptom in details and songs were concluded to be auditory hallucinations. Four weeks later, with clozapine dosage increased to 200 mg/day and augmentation with flufenazine 5 mg/day, her sympoms had increased to the worst that had ever been. Feelings of derealization and depersonalization appeared often. The dosage of clozapine and flufenazine was gradually reduced and ziprasidone was started.

Clinical presentation and nonresponse to antipsychotics called upon the need for diagnostic reevaluation. The patient was referred to our child and adolescent psychiatric hospital. Her chief complaint was the recurrent and persistent musical tunes accompanied by severe anxiety and depersonalization. The music included popular songs and commercial jingles. At the time of her first presentation, the music appeared occasionally, but severily increasing with clozapine therapy causing significant subjective distress. She had full insight into the senselessness and excessiveness of the music, and recognized that the musical tunes were a product of her own mind and not imposed from outside. She also experienced unwanted aggressive thoughts to kill her mother and disgusting sexual images which overwhelmed her with shame and guilt. Her attempts to control unpleasant obsessions by occupying her mind with other thoughts were unsuccessful and anxiety overwhelmed her. There was no evidence of overt compulsive behavior, delusion, perceptual disorder, depressive ideations or cognitive impairment. Physical examination and the routine blood investigation were within normal limits. The EEG examination was within normal limits excluding the possibility of temporal lobe epilepsy. The magnetic resonance imaging of the brain was normal.

According to DSM-IV the patient fulfilled criteria for OCD. At the time of her reassessment, obsessions consumed about 8 hours/day with a total score of 25 on the Children's Yale-Brown Obsessive Compulsive Scale (CYBOCS)[2]. At that time, the patient was taking ziprasidone (160 mg/day), flufenazine (2.5 mg/day) and clozapine (75 mg/day). After gradual discontinuation of antipsychotic therapy over one month, obsessive symptoms persisted although their severity was reduced with (CYBOCS score=20). Fluvoxamine was prescribed and after two months of fluvoxamine treatment at the dose of 200 mg/day, aggressive and musical obsessions had disappeared completely. Over the next month at the dose of fluvoxamine of 300 mg/day, sexual obsessions were markedly decreased to a subclinical level (CYBOCS score=7). The patient continued to improve over the next three months and her OCD had remitted completely (CYBOCS score=0). The improvement persisted in the following 6 months' follow-up with fluvoxamine at the dose of 300 mg/day.

Discussion

Unusual presentation of OCD is not uncommon. One of the reasons for unusual presentation of OCD leading to difficulties in diagnosing is a secrecy associated with this condition. Although patients with OCD generally have full insight into the excessiveness of their symptoms, many patients are ashamed and confused by their symptoms, fear they are losing control and going mad, and actively hide their symptoms. They may present only with severe anxiety and feelings of depersonalization and derealization. Another reason for unusual presentation of OCD may be the presence of a pure obsessional disorder. About 5% of the patients have obsessive thoughts with few or no compulsions present[3]. In such patients with pure obsessional disorder, obsessions are often characterized as somatic, aggressive, religious, or sexual[4]. OCD patients with obsessions related to music have been proposed to constitute a further group of pure obsessive disorder[5]. Our patient was primarily displaying aggressive, sexual and musical obsessions. According to the Lee and Kwon's model[6] sexual and aggressive obsessions belong to the autogenous subtype of obsessions which tend to be perceived as very ego-dystonic and are highly associated with with cognitive/covert symptoms of OCD (e.g., mental compulsions such as tought stopping, distraction) which was present in our patient. Thus, as presented in our case, the secrecy and absence of behavioral symptoms may lead to poor recognition by health professionals, misdiagnosis and mistreatment of OCD.

Several cases of musical symptoms in idiopathic or aquired OCD have been reported[5,7-10] with some of them representing diagnostic dilemmas and initially misdiagnosed for schizophrenia. The musical symptoms in our patient were experienced as a product of her own mind, intrusive and senseless causing marked anxiety, distress and impairment of social and academic functioning accompanied by an attempt to get rid of them. Thus, the musical symptoms of the present case are consistent with the psychopathological characteristics of obsessions defined in the DSM-IV. In the present case, the clinical presentation of the sounds and musical tunes appears to be phenomenologically distinct from musical hallucinations because hallucinations are not experienced as ego-dystonic, nor is there an attempt to suppress or to neu-

tralize them with other thoughts. Moreover, a robust evidence to biologically support a diagnosis of OCD in our case is a treatment response to serotonin selective re-uptake inhibitor fluvoxamine but not antipsychotics. In our patient musical obsessions were present along with aggressive and sexual obsessions and were most likely aggravated by clozapine, but responded to the therapy of fluvoxamine. To our knowledge, no other reported case of musical obsessions responding to selective serotonin reuptake inhibitors (SSRIs) monotherapy, fluvoxamine in particular, has been found. This is in contrast with the report of ineffectiveness of SSRIs for musical obsessions[8]. However, some previous reports have documented a significant response of musical obsessions to an adequate trial of clomipramine[5,9] or a combination of fluvoxamine and clomipramine[10].

Evidence indicates that atypical antipsychotics may aggravate pre-existing and induce *de novo* obsessive--compulsive symptoms (OCS) or OCD in patients with schizophrenia and other primary diagnoses that included a psychotic element[11] but also OCD[12]. This may be the case in our patient with aggressive and sexual obsessions aggravated by risperidone, and musical obsessions most likely exacerbated by clozapine. The natural fluctuations in the course of OCD may have also caused our patient's increased symptoms, but the quantitative intensity of the change and temporal relation to risperidone and clozapine makes this unlikely. In this patient, the severity of OCS was affected by risperidone and clozapine in a dose dependent fashion, which is consistent with previous reports of risperidone-induced OCS above the dosage of 3 mg/day[13,14] and clozapine-induced OCS above the dosage of 150 mg/day[15,16]. Risperidone aggravated OCS after 6 weeks of treatment in our case, while clozapine exacerbated OCS after two months. This is also consistent with previous reports of the latency of appearance of OCSs related to the beginning of atypical antipsychotic treatment ranging from days to weeks for risperidone[13,17], and 2 months to 1 year for clozapine[18]. It is possible that aggressive and sexual obsessions in the present case might have been exacerbated with clozapine at higher doses or longer duration of treatment. Although disinhibition of dopamine through 5HT2A and 5HT2C receptor antagonism has been suggested to be responsible for the emergence of OCSs with atypical antipsychotic treatment[18,19], for clozapine another possible mechanism, a super-sensitivity in 5-HT receptors as a result of the potent 5-HT antagonistic activity, may also play a role[20].

Reports of exacerbation of OCD symptoms with the use of atypical antipsychotics are limited to individuals with a primary psychotic disorder. There is only one report of risperidone worsening fluoxetine-treated OCD[12]. On the other hand, atypical antipsychotics have been used as treatment adjuncts in primary OCD refractory to serotonin reuptake inhibitors (SRIs) with no report of worsening of OCS[21]. As our case shows, atypical antipsychotics may have paradoxical effect and exacerbate OCD symptoms when administered without SSRIs. Atypical antipsychotics initially reduce the level of anxiety in OCD patients, but severely increase it with worsening of primary OCD symptoms over time when administered as monotherapy. Moreover, given the different subtypes of OCD most likely representing neurobiologically distinct subgroups of patients, there may be a subset of pure OCD patients particularly vulnerable to worsening of their OCD symptoms with atypical antipsychotics.

Conclusion

This case illustrates the complex issue of diagnosing »pure obsessive disorder» and the risk of misdiagnosis and mistreatment of OCD when the presenting symptoms are unusual. Increased awareness of professionals involved in treating OCD patients of a wide range od OCD symptoms is important to maximize appropriate diagnosis and early intervention of this common psychiatric condition. Treatment of OCD with atiypical antipsychotics may exert a biphasic effect on OCD symptoms and exacerbate OCD symptoms when administered without SSRIs. Further research on OCD symptom dimensions and more unusual OCD symptoms, may ultimately shed additional light on the psychobiology of OCD and facilitate refinement of the existing and development of new treatments.

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POGREŠNA DIJAGNOZA I POGORŠANJE NEOBIČNE PREZENTACIJE OPSESIVNO-KOMPULZIVNOG POREMEĆAJA S RISPERIDONOM I KLOZAPINOM KOD ADOLESCENTICE: PRIKAZ SLUČAJA

S A Ž E T A K

Opsesivno-kompulzivni poremećaj (OKP) je heterogeni poremećaj s različitim kliničkim manifestacijama. Najčešći simptomi su oni koji uključuju strah od zaraze, moguće štete, simetriju/spremanje, agresivne/seksualne/religiozne brige te sakupljanje. Opisani su i različiti manje učestali simptomi. Rijetki simptomi OKP mogu rezultirati pogrešnom dijagnozom, neadekvatnim liječenjem s mogućim ozbiljnim nuspojavama. U ovim prikazu iznosimo slučaj adolescentice kod koje su neobična prezentacija OKP i simptomi doveli do pogrešne dijagnoze psihoze, pogoršanja simptomatologije OKP tijekom terapije risperidonom i klozapinom. U članku se raspravlja o mogućim patofiziološkim mehanizmima pogoršanja OKP s terapijom risperidonom i klozapinom, kliničkim implikacijama i uspješnim liječenjem ovog slučaja s terapijom fluvoksaminom. Ovaj slučaj može predstavljati prvi slučaj uspješnog liječenja muzičkih opsesija s terapijom fluvoksaminom.