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Short Communication

Obsessive compulsive symptoms associated with quetiapine treatment in a schizophrenic patient: A case report

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Abstract

Purpose: Atypical antipsychotics (AAPs) are used as adjunct therapy in the treatment of resistant obsessive-compulsive symptoms (OCSs). Paradoxically other reports suggest that AAPs, particularly clozapine, risperidone, and olanzapine can induce de novo emergence or exacerbation of OCSs in psychotic patients. The authors present here the first report suggesting an association between de novo appearance of OCSs and quetiapine treatment in a schizophrenic patient.
Case: The patient was a 33-year-old woman with the diagnosis of paranoid schizophrenia, who displayed OCSs for the first time during treatment with quetiapine. The symptoms reduced remarkably when fluoxetine was added to her treatment regimen while keeping the quetiapine dosage unchanged.
Conclusion: AAP-induced OCSs merit consideration and early identification, as these drugs are now widely in use in clinical practice. This rare but disabling side effect should also be monitored in quetiapine treated schizophrenic patients.

Keywords: Antipsychotic agents; Obsessive-compulsive disorder; Quetiapine; Schizophrenia

1. Introduction

There are several case series, open-label and double-blind placebo-controlled studies, which suggest that atypical antipsychotic (AAP) augmentation is efficacious in treatment-refractory obsessive-compulsive disorder (OCD) (Sareen et al., 2004). On the other hand, there are numerous reports of de novo production or exacerbation of obsessive-compulsive symptoms (OCSs) with AAPs (Lykouras et al., 2003). Most of these reports describe an association between AAP therapy and OCS exacerbation in patients with the primary psychotic disorders treated either with clozapine, olanzapine or risperidone (Lykouras et al., 2003; Sareen et al., 2004). The literature survey yielded only one case report which indicates an association between OCS exacerbation and quetiapine administration in a patient with diagnoses of OCD, trichotillomania, delusional disorder and bipolar II disorder (Khullar et al., 2001).

The authors present here a 33-year-old patient with a primary diagnosis of schizophrenia who experienced de novo emergence of OCSs during treatment with quetiapine.

2. Case

This is a 33-year-old married housewife with a 7-year history of schizophrenia (DSM-IV/American Psychiatric Association, 1994). Her husband reported that she had apparently been well until about 7 years ago, when she became suspicious, anxious and convinced that her brother and father would rape her. Over the following years, ideas of reference emerged and she thought that people in the neighborhood were talking about her obesity. She reported having sexual desire for strangers and believed that her relevant thoughts could have been read by people, so they

Abbreviations: AAPs, atypical antipsychotics; D_2, dopamine 2; 5-HT_2, 5-hydroxytryptamine 2; OCD, obsessive-compulsive disorder; OCSs, obsessive compulsive symptoms; Y-BOCS, Yale–Brown Obsessive Compulsive Scale.

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might try to rape her. She felt as if she had been possessed and raped by a male genie. In addition to her reference and persecutory delusions, she also had auditory and visual hallucinations. Meanwhile she was not able to take care of her children and neglected her household duties. Four years after the onset of her complaints, she was hospitalized in a medical facility and was diagnosed as paranoid schizophrenia. She had received multiple trials of conventional neuroleptics in depot and oral form with only partial improvement in her psychotic symptoms. In addition to her initial complaints, she described hearing voices which ordered her to kill her husband and children. She became very anxious as a result of these command hallucinations and spent her days wandering through the house, entering one room after the other. At other times she became extremely agitated and was yelling at or hitting her husband. She attempted suicide by trying to jump out of the balcony or cut her wrists for several times. Monthly zuclopentixol (200 mg) injections were initiated in a medical center in June 2004 because of noncompliance to oral medications, which again provided only a moderate decrease in her psychotic symptoms.

She was referred to Hacettepe University Department of Psychiatry and admitted for hospitalization in September 2004. During the interview, the patient described auditory and visual hallucinations and persecutory delusions. She stated that most disabling of her symptoms were command hallucinations and accompanying anxiety. She had received the last depot injection a month before her admission to the hospital. Oral risperidone therapy was initiated, given the history of several ineffective treatment trials with typical antipsychotic drugs. Risperidone was titrated up to 6 mg/day in two weeks. The hallucinations and delusions disappeared at the end of the third week of risperidone treatment. However, due to the emergence of galactorrhea and hyperprolactinemia, risperidone was stopped at fifth week and quetiapine was initiated and titrated up to 1000 mg/day over a two week period. There were no intolerable adverse effects during the dosage titration. The patient used quetiapine 1000 mg/day for two weeks and then started experiencing aggressive obsessions. The voices which ordered her to kill her husband and children were replaced by recurrent and ego-alien thoughts of harming herself or her children. She suffered the severe anxiety caused by these thoughts, however unlike her previous mood state, there were no accompanying hallucinations. She perceived that these anxiety-provoking thoughts were meaningless and irrational. Although she was trying to resist them, they were intrusive and she was unable to decrease her anxiety. She displayed no compulsions. She scored 18 on the Yale–Brown Obsessive-Compulsive Scale (Y-BOCS) (with good insight). Lorazepam 1 mg and fluoxetine 20 mg were added to her treatment regimen while keeping the quetiapine dosage unchanged. Lorazepam was stopped after 2 weeks as there was a modest decrease in her anxiety. She was discharged on quetiapine and fluoxetine. During her follow-up 3 months later, she described a reduction in the frequency of irresistible thoughts and anxiety, scoring 11 on the Y-BOCS. In the intervening time, her psychotic symptoms did not return.

3. Discussion

To our knowledge, there is no convincing case of de novo OCS emergence associated with quetiapine administration in the literature. Although an exacerbation of symptoms in a patient with OCD after quetiapine administration was described previously (Khullar et al., 2001), the case presented here is the first report of quetiapine-induced OCSs in a patient with a primary diagnosis of schizophrenia.

In addition to presenting the OCSs for the first time, this case differs from the previous one with regard to the dose of quetiapine as well. In the previous report patient was on 50 mg/day, a dose of questionable clinical significance. The concomitant medication (diltiazem) might have caused a possible increase in quetiapine levels, though it was not demonstrated in vivo as discussed by the authors (Khullar et al., 2001). In the case presented here, the obsessive thoughts emerged only after a clinical therapy dosage (1000 mg/day) was acquired, suggesting a clear cut relationship between OCS production and an effective treatment dose of quetiapine, in a schizophrenic patient.

A number of recent open-label studies suggested that quetiapine augmentation may benefit treatment-resistant OCD (Bogan et al., 2005; Denys et al., 2002). The dose was gradually increased to a maximum of 200 mg/day in 4 to 8 weeks in these studies. In our case, rapid titration of quetiapine up to 1000 mg/day in 2 weeks might be associated with the emergence of OCSs. Likewise low final doses of risperidone with gradual escalation were used in most studies as an adjunctive treatment of OCD, with beneficial results (McDougle et al., 2000), whereas the emergence or exacerbation of OCSs in psychotic patients occurred shortly after initiation of risperidone treatment and rapid escalation of the dose to therapeutic ranges (in most cases exceeding 3 mg/day). Nevertheless, as clozapine and olanzapine induce this side effect in a broad dose spectrum, no unequivocal conclusion can be drawn regarding the role of low or high doses of AAPs in the emergence of OCSs (Lykouras et al., 2003).

Given the numerous reports of de novo OCS induction with risperidone, it could be argued that the obsessional thoughts occurred in the patient were due to this drug, which was the previous treatment before quetiapine was introduced. Nevertheless, temporal relation of symptoms to quetiapine initiation and titration of dose to 1000 mg/day makes this explanation unlikely.

Some schizophrenic patients report de novo emergence or exacerbation of OCSs whereas some patients with pure OCD benefit from the adjunct treatment with AAPs (Sareen et al., 2004). The exact mechanism of this bidirectional effect of AAPs on OCSs remains to be clarified. The AAPs have antagonistic activity at both 5-hydroxytryptamine 2 (5-HT_2) and dopamine 2 (D_2) postsynaptic receptors. Both monoamine systems but particularly serotonin, are involved in the pathophysiology of OCD (Barr et al., 1993). Antiserotonergic properties of AAPs have been implicated as the underlying mechanism causing OCSs, with an emphasis on their 5-HT_{2A} and 5-HT_{2C} receptor antagonism (Abi-Dargham et al., 1997).