Unexpected outcome (positive or negative) including adverse drug reactions

Haloperidol induced obsessive compulsive symptom (OCS) in a patient with learning disability and bipolar affective disorder

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Summary

In this case report, a patient with severe learning disability and bipolar affective disorder developed de-novo obsessive compulsive symptom (OCS) with haloperidol, a conventional antipsychotic medication and the OCS stopped with stopping haloperidol. Antipsychotics are recommended and used as augmentation therapy in resistant cases of obsessive compulsive disorder. Although second generation antipsychotics have been reported to have induced OCS but haloperidol, which is a first generation antipsychotic has not been implicated in OCS induction. There is no published report of antipsychotics induced OCS in learning disability population. Clinician should be aware of this potential side effect of haloperidol.

BACKGROUND

Antipsychotic medications are recommended as augmentation therapy with serotonin-specific reuptake inhibitor and tricyclic antidepressants for treating resistant cases of obsessive compulsive disorder (OCD) and the emergence of obsessive compulsive symptom (OCS) due to antipsychotics is paradoxical.

The significance of this case report is twofold. First, all published case reports of antipsychotics induced OCS are in patients from general populations and to our knowledge, there is no published report of antipsychotic induced OCS in a patient with learning disability. Second, most of the reported cases of OCS are due to second generation antipsychotics, and to date no case of OCS due to haloperidol, a first generation antipsychotic, has been reported. People with learning disability with poor communication skills and coexisting movement disorders may demand extra vigilance from clinician to identify this unusual and rare but potential side effect of antipsychotics.

CASE PRESENTATION

A 37-year-old male with severe learning disability of unknown aetiology and has associated autistic spectrum disorder, resident in one of the community group homes for learning disability in Co Sligo was presented.

He also has diagnosis of bipolar affective disorder. He presented with a manic episode with symptoms of elation, disrupted sleep, over talkativeness and problem behaviour in the form of shouting, giving out and hitting other service users and staff. After an initial unsuccessful trial of quetiapine and olanzapine, he was commenced on haloperidol with good response. He was maintained on haloperidol 7.5 mg twice daily. The patient also has diagnosis of epilepsy which is well controlled with long-term slow release carbamazepine 600 mg twice daily. He started to develop OCS in the form of fixing his bed repeatedly and for prolonged periods of time after 2 weeks of commencing on

haloperidol. Initially it was considered stereotypy associated with his autism and was not reported by the staff. But the episodes of OCS got intense and prolonged with time as haloperidol was increased.

He would be fixing his bed cover for hours and continue to do so in spite of reassurance from the staff that the bed was fixed. He would be pushing the bed cover under the mattress all around the bed again and again.

If interrupted by a staff, he would interact with staff to get rid of them so as to continue with his bed fixing. This bed fixing episode was very intense and could prolong from 15 min up to 4–5 h. Sometimes after a prolonged and intense episode he would all be in sweat and would say 'the bed is fixed now'. He had one or two episodes every day and sometimes he would indulge in this behaviour at night time, which has disturbed his sleep.

The bed making was the only OCS, the patient had while on haloperidol. The only explanation of this repeated and prolonged episode by the patient was that the bed was not fixed and needed to be fixed. The cognitive component of this OCS could not be elaborated due to the severe learning disability and limited communication of the patient. This OCS is differentiated with stereotyped behaviour by its purposefulness, bed making in this case while stereotype behaviour which is associated with autism is repetitive but purposeless.

The patient was assessed by his general practitioner and no physical cause could be found for his intense OCS. Haloperidol was reduced and stopped and with that stopped his OCS. The patient was instead recommenced on olanzapine 7.5 mg twice daily but did not develop OCS.

INVESTIGATIONS

Full blood counts and urea and electrolytes were normal, no further tests were performed as the problem stopped with stopping the medications.

DIFFERENTIAL DIAGNOSIS

- ▶ Simple partial seizure
- ▶ Stereotypy associated with autism
- ▶ Mannerism.

TREATMENT

In case of antipsychotic induced OCS, the antipsychotic medication should be switched over to another appropriate antipsychotic medication. In this case haloperidol was successfully switched over to olanzapine 7.5 mg twice daily.

OUTCOME AND FOLLOW-UP

The patient was maintained on olanzapine which was slowly increased to 7.5 mg twice daily without any relapse in his manic symptoms and there has been no emergence of OCS on follow-up for the last 6 months.

DISCUSSION

Antipsychotics, both typical and atypical, have been shown to be effective as add on therapy in resistant cases of OCD in numerous open label and randomised control trials.¹

The worsening or production de novo of OCS with atypical antipsychotics has been documented in numerous case reports. All commonly used atypical antipsychotics, clozapine, quetiapine, risperidone, olanzapine, aripiprazole and ziprasidone have been reported to have caused worsening or induction de novo of OCS.^{2–4}

Most of the cases of atypical antipsychotic-induced OCS have involved patients with chronic schizophrenia; other primary diagnoses have included a psychotic element – psychosis not yet diagnosed, delusional disorder, major depressive episodes with psychotic features and obsessive compulsive (OCD).^{5–7} In one cross-sectional survey, the prevalence of OCD in patients with schizophrenia, taking clozapine is higher (20%) compared with the prevalence of patients taking haloperidol (10%).⁸ Although 20% prevalence of OCD in patients with schizophrenia, taking clozapine is lower than the average prevalence (23%) of OCD in patients with schizophrenia, it however, supports the association of OCD and clozapine when compared with haloperidol but does not have any supporting evidence of association for OCD and haloperidol.^{8,9}

The serotonergic (5-HT) system is known to play a major role in OCD, and SSRIs are effective agents in the treatment of OCD.

Both 5-HT_{2a} and 5-HT_{2c} receptor antagonism have been postulated to play a role in the generation of OCS in patients with a comorbid psychotic disorder.^{10,11}

The relative absence of reports of OCS with typical antipsychotics with strong D₂ antagonism like haloperidol, pimozide and loxapine and its effectiveness in OCD spectrum disorder such as Tourette's syndrome, tic disorders and trichotillomania has led to the hypothesis that D₂ receptors are not implicated in the production of OCS and D₂ blocking is considered therapeutic for OCD in resistant cases.^{12,13} While the lower potency conventional neuroleptic chlorpromazine was reported to induce OCS in two patients.¹⁴

Conventional antipsychotics haloperidol, pimozide and loxapine possess some 5-HT_{2a} antagonism¹¹ and therefore

the present report OCS with haloperidol support the hypothesis of the 5-HT_{2a} antagonism by second generation antipsychotics inducing OCS.

The present report of OCS production due to haloperidol, which is a strong D₂ blocker contradicts the hypothesis that that dopamine blocking improves OCS.

Learning points

- ▶ OCS is rare but potential side effect not only of second but may be caused by conventional antipsychotics
- ▶ The use of antipsychotics should warrant an early identification of OCS in general and in particular in learning disability population who may have co-existing motor and communication difficulty, which may make the diagnosis of OCS relatively difficult.
- ▶ People with learning disability are prone to side effects and this report of OCS induction with antipsychotic being the first in this population, raises concerns of under identification of this and possibly other kind of side effects in this population.
- ▶ This report of OCS induction de novo by haloperidol which is a strong D₂ blocker, put question mark on the hypothesis of dopamine implication in OCS and the effectiveness of D₂ antagonism for OCS. Further studies are needed for further clarifications.

Competing interests None.

Patient consent Obtained.

REFERENCES

1. **Fineberg NA**, Gale TM, Sivakumaran T. A review of antipsychotics in the treatment of obsessive compulsive disorder. *J Psychopharmacol* 2006;**20**:97–103.
2. **Tibbo P**, Warneke L. Obsessive-compulsive disorder in schizophrenia: epidemiologic and biologic overlap. *J Psychiatry Neurosci* 1999;**24**:15–24.
3. **Khullar A**, Chue P, Tibbo P. Quetiapine and obsessive-compulsive symptoms (OCS): case report and review of atypical antipsychotic-induced OCS. *J Psychiatry Neurosci* 2001;**26**:55–9.
4. **Kim SW**, Shin IS, Kim JM, et al. The 5-HT₂ receptor profiles of antipsychotics in the pathogenesis of obsessive-compulsive symptoms in schizophrenia. *Clin Neuropharmacol* 2009;**32**:224–6.
5. **Patil VJ**. Development of transient obsessive-compulsive symptoms during treatment with clozapine. *Am J Psychiatry* 1992;**149**:272.
6. **Buckley PF**, Sajatovic M, Meltzer HY. Treatment of delusional disorders with clozapine. *Am J Psychiatry* 1994;**151**:1394–5.
7. **Andrade C**. Risperidone may worsen fluoxetine-treated OCD. *J Clin Psychiatry* 1998;**59**:255–6.
8. **Sa AR**, Hounie AG, Sampaio AS, et al. Obsessive-compulsive symptoms and disorder in patients with schizophrenia treated with clozapine or haloperidol. *Compr Psychiatry* 2009;**50**:437–42.
9. **Buckley PF**, Miller BJ, Lehrer DS, et al. Psychiatric comorbidities and schizophrenia. *Schizophr Bull* 2009;**35**:383–402.
10. **Baker RW**, Chengappa KN, Baird JW, et al. Emergence of obsessive compulsive symptoms during treatment with clozapine. *J Clin Psychiatry* 1992;**53**:439–42.
11. **Dursun SM**, Reveley MA. Obsessive-compulsive symptoms and clozapine. *Br J Psychiatry* 1994;**165**:267–8.
12. **Potenza MN**, McDougall CJ. Potential of atypical antipsychotics in the treatment of non-psychotic disorders. *CNS Drugs* 1998;**9**:213–32.
13. **McDougall CJ**, Goodman WK, Leckman JF, et al. Haloperidol addition in fluvoxamine-refractory obsessive-compulsive disorder. A double-blind, placebo-controlled study in patients with and without tics. *Arch Gen Psychiatry* 1994;**51**:302–8.
14. **Howland RH**. Chlorpromazine and obsessive-compulsive symptoms. *Am J Psychiatry* 1996;**153**:1503.

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