



## Letter to the Editor

## Anticholinergic induced mania—A case report



## 1. Case report

A 17 years old boy, presented to us with a continuous illness of 9 years duration. Symptoms started in 2007 with hallucinatory behavior, history of delusion of persecution, referential ideas, withdrawn behavior, deteriorating academic performance, deteriorating self-care, decreased sleep and appetite, crying spells, and irritability. From 2011 onwards prominent negative symptoms were present in the form of poor interaction and poor emotional attachment with the family members, and decreased initiation of activities of his own.

For the past few months, family members noticed an increased intake of Trihexyphenidyl (THP) which was previously prescribed to him. He would be asking his parents for the medicine repeatedly. If his parents denied giving medicines, he would purchase from the medical store. His family members noticed that he would be taking up to 6 tablets in a day. He reported that he used to get a pleasurable effect after taking medicines. If he didn't take medicines patient would have prominent anxiety and irritability associated with an intense urge to use the drug. Around two months after this increased intake of THP tablets, the patient started to show symptoms of cheerful mood, decreased the need for sleep, intrusiveness, overactivity, increased demandingness, increased grooming, increased talkativeness, disinhibition, increased libido. He would be appearing very cheerful unlike his usual self and would be speaking more than his usual self. He would wear ornaments unlike his previous self and would demand more money to buy food from outside. On a few occasions, family members found him smoking cigarettes. He would be going near the girl's school and would use abusive language towards them. He also touched girls inappropriately and was subsequently beaten up by people. As he became unmanageable at home, he was brought to our centre and was admitted for management.

On admission, mental status examination revealed an ill-kempt and un-groomed patient with increased psychomotor activity. There was increased rate, tone, and volume of speech, irritable affect, with loosening of association, with bizarre delusion, and delusion of grandiosity with auditory hallucinations 2<sup>nd</sup> person commanding type, with impaired abstraction and judgment, and absent insight. As the patient was already taking 10 mg of Haloperidol, it was increased to 20 mg and THP was continued at the dose of 4 mg.

The plan was made to shift the patient from THP to Phenergan. After reducing THP and starting Phenergan, the patient started reporting craving for THP along with anxiety and irritability. The symptoms of mania like over cheerfulness, increased activity, intrusiveness, and increased talkativeness were reduced to minimal and YMRS score reduced to 12 from 32. During the ward stay, the patient developed oculogyric crisis twice due to which THP was restarted and Phenergan was stopped. After re-starting the THP, there was a re-emergence of manic symptoms such as elated affect, increased libido, intrusiveness, etc.

It was planned to shift the patient to 2<sup>nd</sup> generation antipsychotic with minimal extrapyramidal side effects and taper off THP gradually. Quetiapine was started and increased up to 700 mg over a period of 2 weeks. Haloperidol was tapered off over a period of 3 weeks. Following stopping of THP, the manic symptoms resolved. His psychotic symptoms were also improved.

## 2. Discussion

THP abuse is reported in psychotic patients and also in non-psychotic patients (Buhrich et al., 2000; McInnis and Petursson, 1984). One-third of patients with serious mental illness found to have abused anticholinergics and the incidence of THP abuse in schizophrenic patients has been found to be around 6.5% (Buhrich et al., 2000; Zemishlany et al., 1996). Researchers have found an increase in positive symptoms and a decrease in negative symptoms with anticholinergic use (Tandon et al., 1990, 1992). There are reports of patients feigning the extrapyramidal symptoms to procure medicine (Rubinstein, 1978). It has been found that unmarried and unemployed persons with a history of smoking and drug abuse have more risk for THP abuse (Qureshi et al., 1997). There are multiple causes for Anticholinergic abuse like to get high and altered mental status, to decrease the side effects of neuroleptic medications, and self-medication hypothesis to relieve the negative symptoms of schizophrenia (Buhrich et al., 2000; Nappo et al., 2005; Fisch, 1987). Highest proportion uses for the euphoric effect itself. Anticholinergic is found to have a mood-elevating effect through its mild serotonin and nor epinephrine reuptake inhibition effect which is found to be the reason for its abuse and might also be the reason for the THP induced mania. Apart from that, various cholinergic effects in schizophrenia patients need to be studied further (Tandon, 1999).

Even though there are reports of THP abuse, as far as our knowledge this is the first case report of anticholinergic induced mania.

## 3. Conclusion

Anticholinergics are unavoidable in psychiatric practice. But it is important to know about its deleterious effects and use it carefully in our day to day practice.

## Declaration of interest

None.

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