

QUETIAPINE INDUCED MYOCLONUS

Sir,

Quetiapine is a dibenzothiazepine derivative atypical anti-psychotic and has been suggested to have a lower risk of movement disorder adverse effects. Few reports of myoclonus induced by quetiapine are available in the literature. So, here we report 2 young females who developed myoclonic jerks while on quetiapine.

Miss D, a 19-year-old female presented to us with history suggestive of manic episode for the last 2 months. Her past history also revealed history of 2 GTCS around 6 years back for which no treatment was sought. Her family and personal history were non significant. She was started on quetiapine gradually increased to 300 mg per day over a week and lorazepam 2 mg at night. She showed improvement in her symptoms over the next 2 weeks. After this, the dose was increased to 400 mg per day. After 2 days of this, she developed sudden abrupt jerks lasting for less than a second, especially involving the right upper extremity. These movements would at times be so frequent that she even dropped the things in her hand. An EEG revealed intermittent bilateral polyspike discharges. Her biochemical investigations and MRI brain were normal. The dose of quetiapine was decreased to 200 mg per day and after

about 1 week the patient did not have these jerky movements. EEG after 10 days of this was normal. Quetiapine was then stopped and she was started on oxcarbamazepine and lorazepam and improved in 1 month.

In another case, a 17-year-old female presented with history suggestive of schizophrenia for the past 5 years with no response to risperidone and haloperidol. Her past, family and personal history were non-contributory. She was started on clozapine. However she developed myoclonic jerks on 250 mg of clozapine. Hence clozapine was tapered and stopped over 1 week and quetiapine was started and increased to 500 mg per day over the next 3 weeks, with some improvement in symptoms. The dose was increased to 600 mg per day after 5 weeks of quetiapine initiation. After 3 days of this, the patient developed abrupt jerky movements of palate and upper limbs. Her EEG revealed frequent, intermittent bilateral spike discharges, and slow wave complexes in the precentral regions, reflecting epileptic tendency. All biochemical tests and MRI brain were normal. The dose of quetiapine was reduced to 400 mg per day and the patient showed improvement in these jerky movements in about 5 days. An EEG 10 days after decreasing quetiapine showed no abnormal discharges. Trifluoperazine in the dose of 20 mg was then added.

Both our cases developed jerking on quetiapine therapy, which abated on decreasing the dose of quetiapine. In the second case, possibility of clozapine being responsible again for the myoclonus was not considered as it was stopped 4 weeks prior to the jerks. The reports of finding EEG abnormality in such patients have been contradictory in previous

literature.^[1] Another noteworthy fact is that both of our patients were young females, which is in contrast to previous literature.^[2,3] Even the previous case report of myoclonus with quetiapine has been reported in an elderly male.^[3] However, the patient was also receiving citalopram. We could find only one other case report where myoclonus has been reported with overdose of quetiapine.^[4]

It could be argued that the previous history of seizures in our first case and history of myoclonus on another antipsychotic may have predisposed the patient to the quetiapine-induced EEG changes, and that the myoclonic jerks were part of a seizure disorder. Regarding the pathophysiology of these jerks, the action of quetiapine on multiple neurotransmitters may be involved, especially on serotonin and GABA.^[2,5]

Our cases highlight the need for careful monitoring of patients on quetiapine, especially those with prior history of seizures or of any drug-induced myoclonus.

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