
Letter to the Editor

BACLOFEN-INDUCED PSYCHOSIS IN A PATIENT WITH ALCOHOL DEPENDENCE

Dear Editor,

Baclofen became popular when cardiologist Olivier Ameisen described complete and prolonged suppression of symptoms and consequences of alcohol-dependence upon the use of high-dose baclofen in a self-case report (Ameisen 2005). In 2012, baclofen was approved by the AFSSAPS (Agence française de sécurité sanitaire des produits de santé - French Agency for the Safety of Health Products) for use in the treatment of alcoholism on a case by case basis. However, it still has not been approved by the FDA for use in alcohol dependence. Baclofen reduces the severity of withdrawal symptoms upon termination of alcohol use. This property of baclofen makes it a promising agent in alcohol relapse prevention. Many drugs can cause psychiatric symptoms (Desai 2004). Psychiatric symptoms may ensue after the initiation of treatment, following general medical condition, or due to an unrecognized mental disorder (Desai 2004). Use of many drugs or even withdrawal of some drugs may also cause symptoms such as anxiety, psychosis, delirium, agitation, or depression (Desai 2004). In this letter, we report a case of baclofen-induced psychosis. This case demonstrates the importance of monitoring neuropsychiatric adverse drug reactions after starting baclofen use in patients with a current or past history of mental disorders and/or alcohol use disorder. In rare

cases, baclofen induced mania is reported (Stewart 1992). In another series, baclofen withdrawal led to manic manifestations (Arnold et al. 1980). Management of such cases involves discontinuation or dose reduction of the culprit drug when possible, or adding antipsychotic drugs.

CASE REPORT

A 25 year old unmarried graduate male was admitted to the psychiatry outpatient department with complaints of acute onset of suspiciousness, talking and laughing to self, irrelevant talks, restlessness, and second person auditory hallucinations that occurred in clear consciousness over the last 5 days.

He was diagnosed with alcohol and nicotine dependence and was admitted for detoxification 40 days ago in our hospital. There was no history of any other psychiatric or medical illness in the past. His family history was not contributory for any psychiatric illness. Along with Motivational Enhancement Therapy (MET), he was prescribed baclofen 40mg and lorazepam 4mg each in two divided doses per day and benfotiamine 150 mg once daily. He was discharged after 3 weeks and advised to take the same drugs for 3 weeks. The patient continued using the prescribed medications regularly during that period at home and he was abstinent from alcohol use after discharge.

He was readmitted to our hospital after 15 days due to psychotic symptoms. He was fearful that people around him were trying to harm him. On examination, he reported hearing voices of two unknown male voices calling his name and abusing him. For these symptoms, he was admitted and was given benzodiazepines. Most of the time he was found to be

seated alone with a fearful affect and muttering to himself. A thorough physical examination was carried out and he was afebrile with a pulse rate of 81/min and BP 124/78 mm of Hg. He had no breathing difficulty and respiratory and heart sounds were normal on auscultation. He had no palpable organomegaly and, on evaluation for higher functions, he had intact orientation to time, place, and person. He was able to recall his last night's dinner, his date of birth, and was able to follow a digit span test forward as well as backward up to 5 digits. All deep tendon reflexes as well as a cranial nerve examination were within normal limits. His fundus examination had shown no signs of raised intracranial pressure.

All hematological investigations (which included complete blood profile, liver function tests, renal function tests, serum electrolytes, and random blood sugar level) were found to be within normal limits. His ongoing medications which included baclofen 20 mg twice a day and benfothiamine 150 mg once daily were discontinued. Olanzapine 5 mg twice daily and lorazepam 2 mg at bedtime to curb the psychotic symptoms was initiated. After a reduction in the psychotic symptoms (5 days), he was again given baclofen 20 mg twice a day which led to re-emergence of psychotic symptoms with a similar presentation 48 hours after re-initiation of baclofen. Considering the temporal relation of the onset of psychotic symptoms, drug induced psychosis was suspected and baclofen was discontinued. It resulted in improvement in psychotic symptoms over the next 3 days and the patient recovered completely. The patient was discharged with naltrexone 50 mg once daily, lorazepam 2mg at bedtime, and benfothiamine 150 mg once daily. He was followed up after 1 month, reported to be maintaining well with the above treatment regimen, and was completely abstinent from alcohol.

DISCUSSION

Baclofen is a GABA_B agonist commonly used in spasticity caused by various neurological conditions. Recently, its use as an anti-craving drug in alcohol dependence has become popular. Though there are very few controlled trials showing its efficacy in alcohol dependence, there are many case reports to prove its efficacy (Addolorato and Leggio 2010). The suppressing effects exerted by baclofen on craving for alcohol and drinking during alcohol withdrawal demonstrated baclofen as a promising and unique pharmacotherapy for use in the treatment of alcohol dependence. As a GABA_B agonist, it facilitates the inhibitory action of GABA and indirectly reduces the dopaminergic stimulation at mesolimbic cortex, so it can also be used as an anticraving agent for other substance use disorders like cocaine dependence (Ling et al. 1998).

Baclofen has been associated with various common side effects including dizziness, muscle weakness, and lightheadedness. Baclofen has been reported to cause auditory hallucinations on abrupt withdrawal. In the index patient, we found psychosis was induced by use of baclofen in alcohol dependent patient, which was confirmed by stopping the drug and re-challenging the patient with baclofen. There was a temporal relationship between starting baclofen and appearance of psychotic symptoms without any affective symptoms. The case indicates, not only baclofen withdrawal but also, that the use of baclofen for alcohol dependent patients can cause psychotic symptoms in the form of hallucinations and delusions. There are case reports of baclofen-induced psychosis (Poor et al. 2013), baclofen-induced mania (Stewaet 1992), baclofen-induced seizure (Rush and Gibberd 1990), and baclofen-induced encephalopathy (Hormes et al. 1988) in baclofen naive subjects. Baclofen has been also found to result in recurrent global amnesia in rare cases (Grande et al. 2008).

Clinicians should consider baclofen-induced psychosis as a differential diagnosis in patients presenting with any new onset of psychotic symptoms during treatment with this drug. Baclofen induced psychosis should be ruled out before considering other possible causes.

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