Case Report

Beta blocker induced notorious psychiatric combination: psychosis, depression, and suicide

Abstract

Background

The literature review shows that the most common psychiatric manifestation of beta adrenoreceptor blockers is depression, fatigue, and erectile dysfunction.[1] There was one case reported in the 1970s about psychosis-induced by beta adrenoreceptor blocker. This case report is the only one of its kind reporting an association between psychosis and beta adrenoreceptor blockers uses.[2] The case we would like to report is unique in its kind because it can be considered to be the second in literature to convey the rare, but detrimental, side effect profile of beta adrenoreceptor blockers: psychosis. Furthermore, our case report is demonstrating evidence of psychosis co-existing with worsening depressive symptoms, and emerging suicidal thoughts.

Another large cohort study was conducted in the 1990s that assessed the risk of suicide in 58, 529 users of B-adrenoceptor blockers, calcium channel blockers, and angiotensin converting enzyme inhibitors (ACEIs). One hundred and forty suicide cases were reported in this study, and it was significant in users of B-adrenoceptor blockers. This study and further literature concluded that b-adrenoreceptor blockers were associated with increased risk of suicide.[3,4] However, calcium channel blockers and ACEIs were not associated with increased suicide risk.[3]

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Case report

A 53-year-old Greek gentleman, with past psychiatric history of Major Depressive Disorder, no previous suicidal attempts, was treated and was stable on Escitalopram 20mg, presented to the ED because of attempted suicide by cutting his neck, forearm, and leg and ingesting around 30 tablets of Xanax, Zoloft, and another unknown drug.

The patient was going to travel to Greece the day of his admission, when he decided to cancel his ticket due to stressors at work and home. While he was alone in the house, he began to cut his arms, legs, and neck several times. Afterwards he realized that he would not die with this suicide method. So, he reverted to another method, in which he swallowed all tablets he had in his reach. After awhile, he gave up on attempting suicide and called a colleague of his at the work who was quick to call the ambulance and that's when the patient presented to the ED.

The patient felt ambivalent towards his recent suicide attempt, but he reported that his recent start on a medication was a contributing factor to his suicide attempt. He felt "it gave him the courage" to have his first suicide attempt. He had been having suicidal thoughts for two weeks and worsening mood. He reported depressive symptoms, despite adherence to escitalopram. He suffered from poor sleep and concentration, decrease in his appetite and interest. He even lost interest to go back to Greek to visit his wife and daughter. In addition, he started feeling that everyone at work is cheating on him, conspiring to send him back to Greece. He denies visual or auditory hallucinations or ideas of reference.

Medical history was significant for recent diagnosis of hypertension after incidental blood pressure of 161/107 just two weeks prior to this admission, he was started on Atenolol 50mg once daily and Amlodipine 5mg once daily. He had no prior psychiatric hospitalization and no previous suicide attempts. No family history of psychiatric illnesses. He works in a consulting firm and drinks five beers per week on social occasions. His drinking has not increased recently. He denies smoking and no recreational drug use been reported.

Laboratory results were all within normal limits. No additional medications or herbal supplements. Mental status exam revealed an average weight and height man, looks of stated age, unkempt, uncooperative, with cuts on his neck, bilateral legs and arms, poor eye contact. He describes his mood as "low". His speech is of low tone and rate. He has active suicidal ideations with poor insight. Patient was admitted to the hospital stayed for one month, he was discharged on olanzapine and resumed on escitalopram, Atenolol and Amlodipine, upon discharge he had euthymic mood, no suspiciousness neither having suicidal thoughts and his Hypertension was under control.

Conclusion

We are reporting a case that developed not only psychosis but also increased depressive symptoms and developing suicidal ideations ten days after starting 50 mg of Atenolol for hypertension. We are suspecting that such side effect profile may be under-recognized and we recommend that patients with Major Depression Disorder or severe psychotic illness (es) to be carefully monitored if beta adrenoreceptor blockers were indicated. Clinicians must keep a keen eye when prescribing beta-blockers to patients with psychiatric illnesses. Furthermore, clinicians must maintain caution for suicide and try to substitute Beta adrenoreceptor blockers with ACEIs or Calcium channel blockers, if medically applicable to the patients underlying medical illness.

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Conflicts of interest

Author declares there are no conflicts of interest.

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