



Case Report

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Visual and auditory hallucinations associated with escitalopram in a young male

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Abstract

A 20 years old gentleman was diagnosed and treated for Acute pyogenic meningitis. Following this he developed depression for which he was initiated on Escitalopram. He developed hallucinations in the form of seeing unknown characters and hearing their voices. These symptoms resolved on discontinuing the drug. We concluded that these were hallucinations due to escitalopram.

Keywords: Selective serotonin reuptake inhibitors (SSRI), Hallucinations, Escitalopram.

INTRODUCTION

The selective serotonin reuptake inhibitors (SSRI) have been effectively used for the management of depression and obsessive - compulsive disorders. Escitalopram which is a s-enantiomer of citalopram is a commonly used drug in this group. Here we report a young male patient who presented with auditory and visual hallucinations after using Escitalopram.

CASE REPORT

The patient was a 20 years old gentleman who developed Acute Pyogenic Meningitis a month back, for which he received intravenous antibiotics for two weeks duration. The diagnosis was confirmed after an MRI brain which showed basal exudates and CSF analysis showing high polymorphs with high protein. Following a week of treatment, the patient developed headache, depressed mood and insomnia. No concurrent severe medical illness was identified and repeat CT brain being normal, the patient was diagnosed to have mild depression and was started on 5mg/day of oral escitalopram. The patient, however did not show much improvement in the headache or the depressed mood but began to hear voices of non-existing strangers talking to him about inviting evil spirits. This later progressed to him seeing those non-existing strangers. The voices were commanding and were loud and clear. The patient was admitted to the hospital for evaluation where his general clinical and neurological examination revealed no abnormality. His MMSE (mini mental score exam) was 23. Considering the possibility of SSRI induced auditory and visual hallucinations we withheld further doses of escitalopram. There was marked improvement in headache and mood by 36 hours of stopping the drug and both auditory and visual hallucinations disappeared completely by 48 hours of stopping the drug. There was no relapse of hallucinations on further follow -up at outpatient department at week 2, 4, 6 and 12.

DISCUSSION

SSRI's have long been associated with visual and auditory hallucinations. Drugs like Fluoxetine, Sertaline, Fluvoxamine, Paroxetine, Citalopram are the common ones [1]. There are very few case reports on Escitalopram induced hallucinations. Our patient began to have auditory and visual hallucinations since the initiation of escitalopram and their disappearance within two days of stopping the drug. Previously Dr. Chien Han Lai [2] presented a case with visual and auditory hallucinations after treatment with escitalopram for a month which resolved after two weeks of tapering and stopping the drug. Mowla *et al* [3] reported a case of citalopram induced complex visual hallucinations within two days of starting the drug and discontinuation of the drug resolved the symptoms completely. To my knowledge this may be the first report of escitalopram related auditory and visual hallucinations which occurred immediately on initiating the drug and spontaneously resolved within 48 hours of stopping the drug. This probably suggests the direct causal relationship between escitalopram and hallucinations.

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The pathophysiology for the development of auditory and visual hallucinations could be due to an imbalance between the serotonin and acetylcholine pathways. The neocortex has serotonin receptors which induced visual hallucinations when hyper stimulated. The SSRI's cause hyperactivity of the serotonin system and thereby blunt the response of the cholinergic system [4]. Thereby there is excessive serotonin and less of acetylcholine. This hypothesis was also suggested in the study by Holmes *et al* [5]. Apart from serotonin, dopamine also plays a role in SSRI induced hallucinations. By blocking the dopamine reuptake either directly or indirectly by post synaptic 5HT2 and 5HT3 receptor stimulation, SSRI' s can cause hallucinations. This was proposed by Schuld *et al* [6]. Lauterbach *et al* [7] suggested dopamine release mediated by serotonin, 5HT2 and 5HT3 in the ventral striate could induce psychotic symptoms.

Analyzing the various mechanisms for hallucinations due to SSRIs - it could be due to an imbalance of the serotonin - dopamine and glutamate systems. Discontinuation of the offending drug (SSRI) can terminate the hallucinations.

Conflict of Interest

None Declared.

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