

## CASE REPORT

# THIN AT WHAT COST? CASE REPORTS OF SIBUTRAMINE-INDUCED PSYCHOTIC DISORDERS

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### Abstract

**Objective:** The objective of these 4 case reports is to highlight that psychotic symptom can occur due to the consumption of sibutramine. The psychosis is usually self-remitting, once its consumption is stopped. **Methods:** All cases with first episode psychosis presenting to a tertiary mental health Institute in Singapore were screened and 4 consecutive sibutramine-induced psychoses cases are reported. **Results:** All the 4 cases that were diagnosed with Sibutramine induced psychoses, had history of consumption of the substance in the tablet form or in substances like slimming tea or slimming powders. In 2 out of the 4 cases, no antipsychotics were started. In the 2 cases that received antipsychotics, they were for short duration. There was a temporal association between the consumption of sibutramine containing substances and the onset of psychotic symptoms. All patients were on follow up for two years and in 2 patients, there were no recurrence of psychotic symptoms. In 2 patient recurrent psychotic symptoms were temporally related with consumption of sibutramine and symptoms remitted when the consumption was stopped. **Conclusions:** Despite sibutramine being banned in several countries, it can still be purchased from countries allowing its sale and from online stores. Labeling a patient having schizophrenia can be avoided if detailed history, specifically enquiring about the consumption of sibutramine is obtained. *ASEAN Journal of Psychiatry, Vol. 15 (2): July – December 2014: 213-216.*

**Keywords:** Sibutramine, First Episode, Psychoses

### Introduction

In today's world, being slender and slim is synonymous with being attractive. Men and women resort to strict diet regimen, exercise, surgeries and use of products to help maintain a slim and svelte body. Slimming pills and teas are used rampantly in many parts of the world and many of them contain Sibutramine which is a neurotransmitter reuptake inhibitor that reduces the reuptake of serotonin (by 53%), nor epinephrine (by 54%), and dopamine (by 16%) thereby increasing the levels of these substances in synaptic clefts. Its serotonergic action helps to enhance satiety and thus, though it was developed as an anti-

depressant, because of its anorexiatic effect it has been used extensively as an adjunct in the treatment of exogenous obesity along with diet and exercise [1]. It has found its way into various slimming products like slimming teas [2]. It might only be possible to confirm their presence after analyzing the contents as often; names of all the contents are not listed. The index of suspicion has to be high, when there is a temporal relationship of psychotic symptoms and consumption of slimming products.

The following 4 case reports will focus on the patients presenting with psychotic symptoms secondary to consumption of slimming

substances containing Sibutramine. There was no history of eating disorders or endocrine disorders in any of the 4 case reports described below. All the patients were seen at a tertiary mental health institute in Singapore.

### **Case Report 1**

A 22 year-old Chinese woman with a BMI of 19.2 was brought to the emergency department of a psychiatric hospital by her family with one week history of auditory and visual hallucinations, agitation and aggression. There was no past history or family history of mental illness. The pre morbid functioning was normal. There was no significant stressor. Her family mentioned that she had been consuming slimming pills for the past one and half months that she purchased on her overseas trip to China. She was admitted to the hospital and a thorough physical examination and blood investigations was done, which ruled out other possible causes of altered mental state like ; electrolyte imbalance, metabolic conditions etc. She was diagnosed with Other Substance - Induced Psychotic Disorder with hallucinations, DSM IV TR - 292.12. Intramuscular Lorazepam 2mg stat was given and oral 1mg tds prn was prescribed to decrease agitation. Lorazepam was tapered down and stopped by the sixth day. No antipsychotics were prescribed. There were no psychotic symptoms from the fifth day after admission. The patient was discharged without antipsychotics and continued to be followed up for a period of two years without any recurrence of psychotic symptoms.

### **Case Report 2**

A 37 year old Malay woman with a BMI of 24.1 presented to the psychiatric hospital with a two week history of hearing voices and believed that she was being spied upon. She stopped going out as she felt that someone would harm her. There was no past or family history of psychiatric illness and the premorbid functioning was normal. There was history of consumption of Sibutramine tablets 10mg/day for a period of one and half months prior to the onset of the above symptoms. She had obtained them through online purchases on the internet. There was no history of consumption of alcohol or any other illicit substance. After assessment, she was

diagnosed with Other Substance - Induced Psychotic Disorder with delusions, DSM IV TR - 292.11. She was started on Lorazepam 0.5mg tds as she was very distressed with the auditory hallucination and the persecutory delusion. The psychotic symptoms remitted in 4 days following which she was discharged. She continued to take the anxiolytic for a week in a reducing dose and then stopped them. There were no psychotic symptoms for a period of four months following which she complained of persecutory ideas similar to those displayed during her previous admission. She mentioned that she had restarted the Sibutramine tablets a fortnight ago. The tablets were stopped and she was given anxiolytics as she experienced distress due to her symptoms, which abated within a week. She was discharged and continued to be on follow up for two years without any antipsychotics. No relapse of psychotic symptoms was observed.

### **Case Report 3**

A 33 year-old Chinese woman, with a BMI of 21.4 was admitted to the psychiatric hospital with four days history of poor sleep, anxiety, thinking that she had devices implanted in her brain which allowed people to control her thoughts and behavior. She became agitated when family members tried to convince her otherwise. She was admitted to the hospital and on a mental state examination; she was preoccupied, suspicious and had delusions of passivity. Her mood was anxious. She and her family members denied any illicit substance use. The premorbid level of functioning was normal and there was no previous history of a psychotic illness. There was no positive family history of mental illness. The patient had history of panic attacks three years ago for a period of 6 months for which she had sought treatment and the symptoms had resolved. She was not on any medication at the time of the current presentation. However, she would intermittently consume slimming pills, which she obtained from her visits overseas to China, Thailand or Indonesia and at times, purchased them online. She consumed these pills regularly for a period of one month and then stopped them as she developed difficulty in sleeping and attributed poor sleep to these pills. She restarted the slimming pills 3 weeks ago, one tablet on alternate day for ten days and then one every day. After a physical

examination and blood tests, which were normal, she was started on antipsychotics (Risperidone 1mg at night) which continued during her inpatient stay of five days and subsequently for two weeks. She decided to stop the antipsychotics as she felt she had recovered. Her diagnosis was stated as Other Substance - Induced Psychotic Disorder with delusions, DSM IV TR - 292.11.

On discharge, she went back to taking the same pills on three separate occasions over the next eight months and on each instance, she developed similar psychotic symptoms after a period of ten to fifteen days of consumption. Her family brought the patient back to the hospital and she had to be admitted as an inpatient on each of these occasions as she was very agitated and the family was unable to control her. The symptoms resolved in less than four days on each occasion and antipsychotics were stopped on patient's request as soon as psychotic symptoms resolved. Subsequently, after a two year follow up she has remained asymptomatic.

#### **Case Report 4**

A 28 year-old Malay lady with BMI of 27.8 was brought to the psychiatric emergency department by her family for three days of increasing suspiciousness, aggression, poor sleep and disorganized behaviour. On a mental state examination, she was agitated, had auditory and visual hallucinations and persecutory delusions. Complete blood count, liver and thyroid function test results were within normal limits. Urine toxicology for controlled substances (amphetamines, cannabinoids, opioids, and benzodiazepines) was negative. Both the patient and the family members denied any history of psychiatric or major medical illness and the premorbid functioning was normal. The family mentioned that she had been taking 'some tablets' that she called 'diet pills' and had purchased them overseas, from her trip to Cambodia, for the past 2 weeks and had told them that she was taking them to lose weight. A week after starting these pills she had difficulty in sleeping, increasing anxiety and the following week, she developed the above mentioned symptoms. She was started on an antipsychotic (haloperidol 1mg, at night). She showed significant improvement over the next

four days and was discharged and advised not to consume the 'diet pills'. Haloperidol was stopped on patient request. The family brought the container of the above mentioned tablets to the hospital and one of the active ingredients mentioned was Sibutramine. Despite agreeing not to take the pills, she continued to consume intermittently and on each occasion she had similar symptoms of poor sleep, increasing suspiciousness, aggression, hallucinations and delusions. Her family would take the pills away from her and her symptoms would abate and improve within a week. Antipsychotics were not started as the family and the patient were not keen to do so. She was on follow up for a period of two years and during this period, she had three such relapses, each time temporally related to consumption of the sibutramine tablets.

#### **Discussion**

Sibutramine is still used in various parts of the world. Though banned in Singapore, many patients purchase it overseas or online. Awareness of its psychiatric side effects is important especially as the psychosis is self remitting after stopping the sibutramine. Prior to diagnosing a patient with a psychotic disorder, specifically enquiring into the history of consumption of slimming substances is important to avoid misdiagnoses. Many of the patients on antipsychotic treatment consume sibutramine to combat weight gain secondary to the medications. In patients with breakthrough psychotic symptoms despite compliance to antipsychotics, specifically enquiring about concomitant consumption of sibutramine containing products is indicated. This will help avoid needless increase or change of the antipsychotic.

A number of cases of sibutramine associated psychoses have been reported over the past few years [3,4]. The psychopathology ranging from manic psychoses, delusional disorder and paranoid episodes. It has been withdrawn from the market in the United States, India, Australia, Singapore, Canada, Thailand, several EU countries, Hong Kong and United Kingdom. The psychotic symptoms are caused by the increased levels of dopamine. The above case reports demonstrate a causal relationship between sibutramine and psychoses. It has also been reported by the

French Pharmacovigilance Centre to cause depression and suicidal tendencies in patients without such previous episodes [5]. There are also reports of paranoid psychosis associated with use of sibutramine, including feelings of passivity, unreality, hallucinations and ideas of reference, violence, and depression [6]. There has been a reported incident of catatonia with this medication [7]. It should not be prescribed or prescribed with extreme caution in individuals with vulnerability to psychoses, e.g. genetic vulnerability, poor premorbid functioning. The other common side effects are cardiac in nature, especially in those with preexisting cardiac problems [8] and can present as arrhythmias and tachycardia, palpitation, hypertension, chest pain, angina, and strokes.

## References

1. Heal, D. J.; Aspley, S.; Prow, M. R.; Jackson, H. C.; Martin, K. F.; Cheetham, S. C. (1998). "Sibutramine: a novel anti-obesity drug. A review of the pharmacological evidence to differentiate it from d-amphetamine and d-fenfluramine". *International journal of obesity and related metabolic disorders : journal of the International Association for the Study of Obesity*. 22 Suppl 1: S18–S28.
2. Müller, D.; Weinmann, W.; Hermanns-Clausen, M. (2009). "Chinese slimming capsules containing sibutramine sold over the Internet: a case series". *Deutsches*
3. Tomasz Torfinski, Jolanta Chojnacka. Sibutramine-Associated Psychotic Episode. *Am J Psychiatry* December 2000 157:2057-2058.
4. Litvan, Lia, Alcoverro-Fortuny, Òscar. Sibutramine and Psychoses. *Journal of Clinical Psychopharmacology*. 27(6):726-727, December 2007.
5. LRP: Sibutramine: nouveaux effets indésirables. *La Revue Prescrire* Janvier 2003; 23:26.
6. FDA Regulatory history of Sibutramine hydrochloride monohydrate - Food and Drug Administration. [www.fda.gov/downloads/AdvisoryCommittees/.../UCM225573.pdf](http://www.fda.gov/downloads/AdvisoryCommittees/.../UCM225573.pdf). Endocrinologic and Metabolic Drugs Advisory Committee Meeting on 15 September 2010: 48 – 50.
7. Lee J, Teoh T, Lee TS. Catatonia and psychosis associated with sibutramine: A case report and pathophysiologic correlation. *Journal of Psychosom. Res.* 2008 Jan; 64(1):107-9.
8. W. Philip T. James, et al Effect of Sibutramine on Cardiovascular Outcomes in Overweight and Obese Subjects. *N Engl J Med* 2010; 363:905-917 September 2, 2010.

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