

Cyproheptadine-Induced Obsessive-Compulsive Symptoms in a Preschool Child

Ilyas Kaya¹, Funda Suleyman¹, Murat Coskun²

ABSTRACT:

Cyproheptadine-induced obsessive-compulsive symptoms in a preschool child

Cyproheptadine is a first-generation antihistamine with additional anticholinergic, antiserotonergic, and local-anesthetic properties. It has been shown effective as an appetite stimulant in the treatment of young children with feeding difficulties and poor growth with or without medical illness. Adverse reactions to cyproheptadine may include sedation, confusion, hallucinations, convulsions, hypotension, palpitations, and tachycardia. Despite cyproheptadine may cause neuropsychiatric side effects, a review of literature showed that there is no report of cyproheptadine induced obsessive compulsive symptoms. Here, we present a preschool girl with sexual and religious obsessions emerged after using cyproheptadine as an appetite stimulant for one week.

Keywords: cyproheptadine, side effects, obsession, compulsion, preschool child

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¹M.D., ²Assoc. Prof., Istanbul University, Istanbul Medical Faculty, Department of Child and Adolescent Psychiatry, Istanbul - Turkey

Corresponding author:

Dr. Ilyas Kaya,
Istanbul Üniversitesi, İstanbul Tıp Fakültesi,
Çocuk ve Ergen Ruh Sağlığı ve Hastalıkları
Anabilim Dalı, İstanbul - Türkiye

E-mail address:

dr.ilyaskaya@gmail.com

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INTRODUCTION

Cyproheptadine is a first-generation antihistamine with additional anticholinergic, antiserotonergic, and local-anesthetic properties indicated for treatment of rhinitis, conjunctivitis, urticaria and migraine. Cyproheptadine is known to be an antagonist on a number of receptors including 5HT_{2A} and 5HT_{2C} receptors¹. It has been shown effective as an appetite stimulant in the treatment of young children with feeding difficulties and poor growth with or without medical illness². Adverse reactions to cyproheptadine may include sedation, confusion, hallucinations, convulsions, hypotension, palpitations, and tachycardia¹. Despite cyproheptadine's known neuropsychiatric

side effects¹, to the best of our knowledge there is no report about cyproheptadine induced obsessive compulsive symptoms in the literature. Here, we present a preschool girl with sexual and religious obsessions emerged after using cyproheptadine as an appetite stimulant for one week.

CASE PRESENTATION

A preschool girl aged 5 years 8 months was referred to our clinic due to some distressing thoughts and fears that was reported to be emerged one week ago with an acute onset. According to her mother, she was repeatedly asking "Is the God going to punish me? Did I commit a sin?". She was getting distressed when

she saw kissing people on TV and afraid of doing shameful things to her parents. She reported that she saw two people kissing on TV and now she cannot get rid of that image from her mind. She defined these symptoms, as “bad thoughts coming to her mind despite her will”. She did not have any aggressive, contamination, symmetry, or other types of obsessions or compulsions. She also denied having any obsessions before this time. Her mother said that she has been a shy child. She was started on cyproheptadine 4 mg/day by a family physician one week before this presentation in order to improve her appetite. Her religious and sexual obsessions emerged at the fifth day of the treatment. Her weight was 14 kilograms and she appeared to be younger than her age. She was shy and she sat beside her mother during the whole interview. She was diagnosed with social anxiety and the obsessive-compulsive symptoms were considered to be medication induced. Her developmental history was within normal limits. She did not have any other medical or neurological conditions. She had no history of recent upper respiratory tract infection or any other medical condition that may have triggered obsessive symptoms. Her family history revealed generalized anxiety disorder in biological mother and panic disorder and obsessive compulsive disorder in biological father. Because her obsessive-compulsive symptoms were considered to be secondary to cyproheptadine, she was recommended to discontinue medication. Her obsessive symptoms gradually resolved within two weeks of cyproheptadine discontinuation.

DISCUSSION

OCD is a debilitating disorder characterized by the presence of obsessions and compulsions. Contrary to the previously recognized notion that preschool children cannot develop OCD, recent literature has demonstrated that even preschool children can develop and suffer from distressing

OCD symptoms. Meanwhile there have been several reports that antiserotonergic and antidopaminergic agents, such as atypical antipsychotics, may induce OCD symptoms in young or adult subjects³. Atypical antipsychotics may have higher affinity for 5HT₂ receptors than D2 receptors, and it has been suggested that they may induce OCD symptoms, even at lower doses³. Despite cyproheptadine's known neuropsychiatric side effects¹, to the best of our knowledge there is no report about cyproheptadine induced obsessive compulsive symptoms in the literature. Our patient's religious and sexual obsessions emerged within the first week of cyproheptadine use and resolved within two weeks of the discontinuation. Therefore, obsessions were considered as cyproheptadine-induced. There are several methods for causality assessment of adverse drug reactions. In this case, we used Naranjo causality scale and it revealed a score of 5 showing probable causative association⁴. Given the previous reports and clinical experience that antiserotonergic agents may induce OCD symptoms³, cyproheptadine induced obsessions in this case may be due to antiserotonergic (such as 5HT_{2A} and 5HT_{2C}) effects of this medication¹. Regarding an infectious/ autoimmune processes that may cause such symptoms, we did not consider possibility of pediatric autoimmune neuropsychiatric disorders associated with streptococcal infection (PANDAS) as there was no history of infection or other symptoms suggesting PANDAS in this case⁵. Meanwhile current family history of OCD and presence of an anxiety disorder in the subject may be risk factors to develop future OCD symptoms in this subject. Cyproheptadine is a commonly used medication among pediatric population. Clinicians treating children both in pediatric and psychiatric practice should be familiar with the possibility of emergence of obsessive compulsive symptoms while using cyproheptadine particularly in subjects with anxiety disorders and family history of OCD.

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