



Effect Of Cyproheptadine Overdose In A Child: A Case Report

¹Narayan Santuka, ²Bibhu Prasad Nayak

¹Senior Resident, ²Associate Professor

¹Senior Resident, Department of Pediatrics, Bhima Bhoi Medical College, Balangir, Odisha

²Associate Professor, Department of Pediatrics, Dharanidhar Medical College, Keonjhar

***Corresponding Author:**

Narayan Santuka

Senior Resident, Department of Pediatrics, S.C.B. Medical College, Cuttack, Odisha

Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Cyproheptadine is a 1st generation anti-histaminic and is also widely used as appetite stimulants in pediatric population. It also possesses central anticholinergic properties and can cause CNS depression in overdose cases. We report a case where a child was admitted in disoriented state following intake of Cyproheptadine syrup.

Keywords: Cyproheptadine overdose, anti-cholinergic, appetite stimulant

Introduction

The practice of using supplements and appetite stimulants is widespread in India and the knowledge about the consequences of its overdose is extremely important. Here we talk about a commonly used appetite stimulant in children, Cyproheptadine, the overdose of which can have significant effects, but is rarely reported. There are few reports from other countries^{1, 2} but we probably report the first case of Cyproheptadine overdose from India.

CASE CHARACTERISTICS: A 4 year old, apparently normal Indian girl child, accidentally took about 25 to 30 ml of syrup Cyproheptadine prescribed to her as an appetite stimulant by a physician from a local hospital and presented to the Pediatric OPD in disoriented state.

OBSERVATION: The child upon admission was found to be disoriented, with intermittent abnormal cry, ataxic gait, speaking incomprehensible words and was unable to sleep in the mother's lap despite several attempts. The child was admitted, detailed history was taken and it did not reveal any past illness nor any similar episodes. There was no history of fever or convulsions and meningeal signs were absent. The child was kept under observation with nil

per oral and intravenous fluids. Complete blood counts, Serum electrolytes, renal function tests and liver function were performed and were found to be within normal limits. Child gradually regained normal sensorium without any additional intervention and was planned for discharge after 72 hours of in-hospital stay.

DISCUSSION: Feeding difficulties in children manifest as prolonged mealtimes, food refusal, disruptive and stressful mealtimes, lack of appropriate independent feeding, nocturnal eating in infants and toddlers, introduction of distractions to increase intake, prolonged breast- or bottle feeding in toddlers and older children, or failure to introduce advanced textures. However, most of these problems are either misperceived feeding problems or a mild form of feeding difficulty, and only 1%–5% of young children seem to have problematic feeding disorders⁵. Cyproheptadine is a 1st generation antihistaminic and was primarily meant to be used for anti-allergic actions. But soon after, its effects of appetite stimulation and weight gain were discovered and confirmed with several studies³. Since then, it has gathered widespread usage as an appetite stimulants

particularly in the pediatric population. Like other first generation antihistaminic, Cyproheptadine also possess central anti-cholinergic effects and its overdose symptoms may include extreme drowsiness, hallucinations, very dry mouth, dilated pupils, pale or reddish skin, tingly feeling, restlessness, weak or shallow breathing, or a seizure⁴. Intake above the therapeutic doses may cause these effects and could be life threatening if not provided with appropriate medical care.

MESSAGE: Feeding difficulties are very common health problems in childhood, especially in infants and toddlers, the majority of which are caused by nonorganic etiologies and can be managed by following age appropriate feeding principles instead of prescribing medications routinely for all⁶. Adequate care is needed for the prescription of Cyproheptadine and parents must be properly informed about the consequences of the inadvertent overdose of the drug.

REFERENCES:

1. McGovern T, McNamee J, Marcus S, Kashani J. When Too Much Is Enough: Pediatric Cyproheptadine Overdose with Confirmatory Level. *Clin Pract Cases Emerg Med.* 2017 Jul 6;1(3):205-207. doi:

10.5811/cpcem.2017.2.33313. PMID: 29849323; PMCID: PMC5965171.

2. Watemberg NM, Roth KS, Alehan FK, Epstein CE. Central anticholinergic syndrome on therapeutic doses of cyproheptadine. *Pediatrics.* 1999 Jan;103(1):158-60. doi: 10.1542/peds.103.1.158. PMID: 9917456.

3. BERGEN SS Jr. APPETITE STIMULATING PROPERTIES OF CYPROHEPTADINE. *Am J Dis Child.* 1964 Sep;108:270-3. doi: 10.1001/archpedi.1964.02090010272008. PMID: 14168064.

4. Cyproheptadine uses, Side Effects & Warnings [Internet]. *Drugs.com.* [cited 2022Sep11]. Available from: <https://www.drugs.com/mtm/cyproheptadine.html>

5. Kerzner B, Milano K, MacLean WC, Jr, Berall G, Stuart S, Chatoor I. A practical approach to classifying and managing feeding difficulties. *Pediatrics.* 2015;135:344–353.

6. Yang HR. How to approach feeding difficulties in young children. *Korean J Pediatr.* 2017 Dec;60(12):379-384. doi: 10.3345/kjp.2017.60.12.379. Epub 2017 Dec 22. PMID: 29302261; PMCID: PMC575263