

## CYPROHEPTADINE INTOXICATION : A CASE OF DEEP PROLONGED COMA

## INTOXICATION A LA CYPROHEPTADINE : UN CAS DE COMA PROFOND PROLONGE

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**Abstract**

Antihistamine poisoning can result in different clinical presentations, related to several factors such as the dose of the antihistamine, age, weight and history of the individual. An altered state of consciousness such as drowsiness and confusion has been reported in most cases. Here, we report the case of a 42-year-old woman with no medical history who presented for cyproheptadine poisoning. The patient was found unconscious with a Glasgow score of 4/15, requiring intubation and immediate mechanical ventilation and admission to intensive care. Despite a state of deep coma for 15 days requiring a prolonged stay in intensive care units, the patient completely recovered neurologically. This case highlights the potential severity of neurological impairment following cyproheptadine intoxication.

**Key - words:** Cyproheptadine; Antihistamine; Intoxication; Deep coma; Intensive care.

**Résumé**

Une intoxication aux antihistaminiques peut entraîner différentes présentations cliniques, liées à plusieurs facteurs tels que la dose de l'antihistaminique, l'âge, le poids et les antécédents de l'individu. Une altération de l'état de conscience à type de somnolence et de confusion a été rapportée dans la plupart des cas. Ici, nous rapportons le cas d'une femme âgée de 42 ans sans antécédents médicaux qui s'est présentée pour intoxication à la cyproheptadine. La patiente a été retrouvée inconsciente avec un score de Glasgow à 4/15, nécessitant une intubation et une ventilation mécanique immédiate et une admission en réanimation. Malgré un état de coma profond pendant 15 jours nécessitant un séjour prolongé en unités de soins intensifs, la patiente a complètement récupéré sur le plan neurologique. Ce cas souligne la gravité potentielle de l'altération neurologique suite à une intoxication à la cyproheptadine.

**Mots - Clés :** Cyprohéptadine ; Antihistaminique ; Intoxication ; Coma profond ; Réanimation.

**ملخص**

يمكن أن يؤدي التسمم بمضادات الهيستامين إلى مظاهر سريرية مختلفة، تتعلق بعدة عوامل مثل جرعة مضادات الهيستامين والعمر والوزن والسوابق المرضية الشخصية للفرد. تم الإبلاغ عن حالة اضطراب للوعي مثل النعاس والارتباك في معظم الحالات. نورد هنا حالة امرأة تبلغ من العمر 42 عامًا ليست لها سوابق طبية وقد تعرضت للتسمم بالسبيروهيبتادين. تم العثور على المريضة فاقدًا للوعي بدرجة غلاسكو 4/15، مما يتطلب التنبيب والتهوية الميكانيكية الفورية و الإواء بالعناية المركزة. وعلى الرغم من دخول المريضة في غيبوبة عميقة لمدة 15 يومًا و تطلبها لإقامة مطولة في وحدات العناية المركزة، إلا أن المريضة تعافت تمامًا من الناحية العصبية. تسلط هذه الحالة الضوء على الخطورة المحتملة للتسمم.

**الكلمات المفتاح :** سبيروهيبتادين; مضادات الهيستامين; التسمم; الغيبوبة العميقة; العناية المركزة.

**INTRODUCTION**

Cyproheptadine, a first-generation antihistamine, possesses anticholinergic and antiserotonergic properties. It is prescribed for the management of various allergic conditions [1].

An intoxication of cyproheptadine generally results in a mild impairment of neurological state characterized by drowsiness and asthenia [2]. A severe clinical presentation is rare, and isolated cases of fatalities have been reported in the literature [3, 4].

Here, we present the case of a patient with no past medical history who presented with deep and prolonged coma after an intentional intoxication of cyproheptadine.

**CASE PRESENTATION**

A 42-year-old female with no past medical history presented to the emergency department 4 hours after a reported intentional intoxication of 25 pills (100 mg) of cyproheptadine in an attempt at suicide. Upon admission, she was unconscious with a Glasgow Coma Scale score of 4/15 and pupils that were normally dilated. The patient was immediately intubated by emergency medics and transferred to the ICU ward for further management.

An urgent CT scan of the brain was conducted, revealing no abnormalities. The days following sedation cessation, the patient remained unresponsive and showed no signs of neurological improvement. To further evaluate the condition, an electroencephalogram (EEG) was performed, which indicated a pattern of moderate to severe

cerebral distress without any paroxysmal anomalies. Additionally, a cerebral MRI was conducted, which showed no abnormalities.

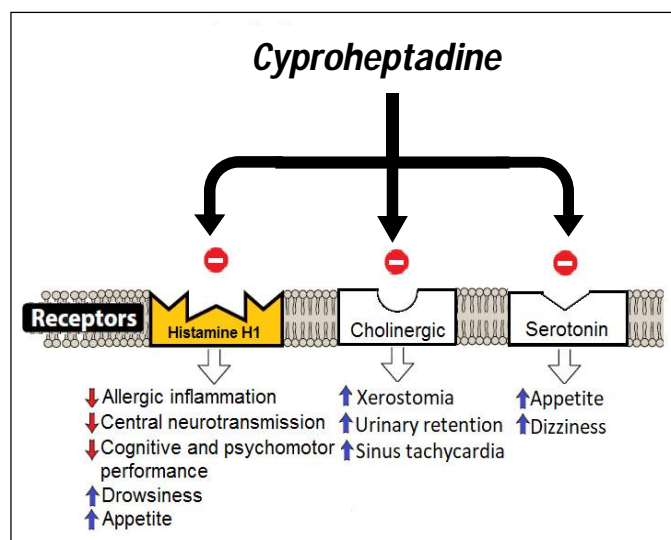
The patient underwent a tracheotomy after 12 days of hospitalization due to prolonged intubation resulting from her neurological condition. Throughout her hospital stay and due to prolonged mechanical ventilation, she developed a ventilator-associated pneumonia caused by *pseudomonas aeruginosa*. The infection was successfully controlled by a 14-day course of colistin.

Additionally, she was diagnosed with bilateral and proximal pulmonary embolism and started on intravenous heparin, which was later switched to an oral anticoagulant (anti-vitamin K).

The patient's neurological state began to improve 15 days after the incident, and she made a full neurological recovery after 35 days of hospitalization. After spending 41 days in the ICU, she was transferred to the psychiatric ward after regaining a full neurological recovery and a successful decannulation of the tracheotomy.

**DISCUSSION**

Cyproheptadine is a first-generation H1 antihistamine that can readily cross the blood-brain barrier and bind to histamine receptors in the central nervous system, resulting in various adverse reactions including hallucinations, drowsiness, impaired coordination and agitation. Its limited selectivity for H1 receptors and blockade of cholinergic and serotonin activity can lead to a high incidence of undesirable effects, such as urinary retention, dry mouth, tachycardia, and gastrointestinal disturbances [2, 5, 6] (Figure 1)



Cyproheptadine intoxication is a relatively uncommon presentation in emergency departments. Mild neurological impairment such as drowsiness and dizziness are widely prevalent but cases with deep coma are rarely encountered. In our case, cyproheptadine overdose did result in severe neurological impairment. She presented with a deep coma (Glasgow score at 4/15) that persisted for 15 days.

The brain CT scan and MRI did not reveal any abnormalities, but the EEG performed on the fourth day of hospitalization indicated a pattern of moderate to severe cerebral distress without any paroxysmal anomalies.

There is no specific treatment or antidote for cyproheptadine poisoning. In the absence of specific guidelines, the management of a severe presentation of cyproheptadine overdose is mainly symptomatic, focusing on supportive measures including airway protection, mechanical ventilation and hemodynamic support.

The patient's eventual recovery is likely due to the prompt recognition and management of the overdose, as well as the adequate treatment of previously described complications.

## CONCLUSION

The case presented here highlights the potential severity of neurological impairment caused

cyproheptadine overdose and the importance of its prompt recognition, management, and treatment.

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