

# A Case of Anticholinergic Intoxication: Datura Stramonium

Muhammed Ali Balcıoğlu, Anıl İflazoglu, Yasemin Gaben, Amro Mohd Hafeth, Firas Arda Dönmez, Alper Taşkın, Ali Karakuş \*, Mustafa Polat

Hatay Mustafa Kemal University, Faculty of Medicine, Emergency Medicine, Hatay, Turkey

\*Corresponding Author: Ali Karakuş, Hatay Mustafa Kemal University, Faculty of Medicine, Department of Emergency Medicine.

Received date: October 26, 2024; Accepted date: November 04, 2024; Published date: November 11, 2024

Citation: Muhammed Ali Balcıoğlu, Anıl İflazoglu, Yasemin Gaben, Amro Mohd Hafeth, Firas Arda Dönmez, et al, (2024), A Case of Anticholinergic Intoxication: Datura Stramonium, *Clinics in Nursing*, 3(1) DOI:10.31579/2835-8147/065

Copyright: © 2024, Ali Karakuş. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## Abstract:

Anticholinergic syndrome was considered when it was determined that the plant was Datura stramonium. Our patient was admitted to the intensive care unit for further observation and treatment. After three days, she was discharged with a full recovery.

**Key words:** datura stramonium; atropine; anticholinergic syndrome; devil's apple; pipe flower

## Introduction

The plant datura stramonium, commonly known as the devil's apple, pipe flower, laughter flower, magician's herb, is a widely used medicinal plant with a long history of traditional use for the treatment of various ailments, including asthma, diarrhoea, nocturia, haemorrhoids and acne. The plant contains L-hyoscyamine, atropine and scopolamine.

## Case

A 52-year-old woman was brought to hospital by her relatives with the complaint of confusion. Patient was in delirium. patient was Gcs 11, non cooperative non orientated. patient's vitals were blood pressure 140/70 mmhg, pulse 110/min ECG sinus rhythm, qt distance 420ms in normal limits, respiratory rate 22/min, spo2 95, temperature 37.8°. On physical examination, eyes were bilaterally mydriatic, mucous membranes were dry and cheeks were plethoric. Auditory and visual hallucinations were observed during follow-up. The patient was told by her relatives that she had eaten a plant 4 hours ago for haemorrhoid treatment and her complaints started 2 hours ago. Anticholinergic syndrome was considered when it was understood that the plant was datura stramonium. No acute pathology was found in laboratory results. Monitorisation was provided, nasogastric catheter and bladder catheter were inserted. Gastric lavage was performed, activated charcoal 1gr/kg, 5 mg diazem iv and saline infusion 200cc/hour were started because he was in delirium. In cases where the clinic could not be controlled, physostigmine is administered 1-2 mg IV (given in 5 minutes) in adults and 20 µg/kg (0.02 mg/kg) in children. In anticholinergic toxidrome, ileus and glob vesicale may develop in patients and their inability to express this may increase their agitation. Our patient was hospitalised in intensive care unit for follow-up and treatment. After 3 days, she was discharged with a full recovery

## Discussion

Datura stramonium plant, popularly known as devil's apple, pipe flower, laughter flower, magician's herb, is widely used by the people for the treatment of asthma, diarrhoea, nocturia, haemorrhoids and acne. (1,2) It contains L-hyoscyamine, atropine and scopolamine. Patients who consume too much of it present with anticholinergic toxidrome due to atropine. Gastric lavage, activated charcoal, physostigmine, diazem, hydration and bladder probe are recommended in treatment. (3-7)

In our case a 52-year-old female was admitted to the medical facility by her family members with the indication of cognitive impairment. The patient was exhibiting signs of delirium and was unable to cooperate or orientate themselves. Upon physical examination, it was observed that the eyes were bilaterally mydriatic, the mucous membranes were dry, and the cheeks were plethoric. During the follow-up, auditory and visual hallucinations were observed. The patient was informed by her relatives that she had ingested a plant four hours prior for haemorrhoid treatment, and her symptoms began two hours ago.

## Conclusion

It should be known that Datura stramonium causes anticholinergic poisoning and treatment should be initiated rapidly in patients presenting with anticholinergic symptoms.

## References

1. Greene GS, Patterson SG, Warner E. (1996), Ingestion of angel's trumpet: an increasingly common source of toxicity. *South Med J.* 89(4):365-9.
2. Kim Y, Kim J, Kim OJ, Kim WC. (2014), Intoxication by angel's trumpet: case report and literature review. *BMC Res Notes.*7:553.

3. Bıçakçioğlu M, Gedik E, Şayan H, Gök A, Toğal T. (2014), Life-threatening poisoning associated with Datura stramonium: case report. *Türkiye Klinikleri J Med Sci*.34(4):417-9.
4. Deniz T, Nargis C, Güven H, Tanyer F. (2004), Poisoning of Datura stramonium: case report. *O.M.Ü. Tıp Dergisi*.21(1):28-31.
5. Uyanık E, Eliçabuk H, Serinken M. (2011), Delirium due to datura stramonium intoxication: case report. *Journal of Contemporary Medicine*.1(2):67-70.
6. Karakuş A, Parlar T, Bucak A. (2017), DIFFERENTIAL DIAGNOSIS OF DELIRIUM: DATURA STRAMONIUM POISONING. *General Medicine Journal*.27(3):112-114.
7. Karakuş A. (2018), Letter to the Editor. Emergency That Should not be Forgotten in Anticholinergic Poisoning: A Case with Datura Intoxication. *Selcuk Med J*.34(2): 82-83

**Ready to submit your research? Choose ClinicSearch and benefit from:**

- fast, convenient online submission
- rigorous peer review by experienced research in your field
- rapid publication on acceptance
- authors retain copyrights
- unique DOI for all articles
- immediate, unrestricted online access

**At ClinicSearch, research is always in progress.**

Learn more <https://clinicsearchonline.org/journals/clinics-in-nursing>



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.