

Dieffenbachia Poisoning

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ABSTRACT

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A young male presented to the emergency department with difficulty in speaking due to swollen tongue and excessive thick saliva following consumption of an ornamental plant leaves kept at his house as an act of self-harm. The plant was identified to be dieffenbachia and the patient was treated with symptomatic measures.

Keywords: Dieffenbachia, Dumb Cane, Poisoning

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INTRODUCTION

Dieffenbachia is a genus of tropical flowering plant in the family of Araceae. It is native to tropical countries and are widely cultivated as ornamental plants, particularly as indoor houseplant.

The laymen's term "dumb cane" refers to the poisoning effect of raphides, which are needle shaped calcium oxalate crystals, causing temporary burning sensation, excessive salivation and inability to speak.¹

CASE REPORT

We report a case of intentional ingestion of dumb cane plant leaves, requiring hospitalisation. A 24 year old male presented to emergency department with history of difficulty to speak following intentional ingestion of dumb cane plant leaves, after about three hours of ingestion. No other comorbidities were obtained from history. Emotional disturbance in personnel life was the trigger for the incident.

On examination, vitals were stable. His oral cavity was full of thick saliva and oropharynx was erythematous. Tongue was swollen with congestion of oropharynx

Systemic examination was unremarkable. Routine laboratory evaluation was within normal limits. Due to excessive salivation and difficulty to speak, he required hospitalisation for observation.

Gastric lavage was done soon after arrival at emergency department and he was given symptomatic therapy. His symptoms resolved in few hours and was discharged after

24 hours of observation. The plant was identified to be Dieffenbachia and the clinical profile observed in our patient matched with the consumption of the leaf of this toxic ornamental plant.

DISCUSSION

Accidental and intentional ingestion of dumb cane leaves are not uncommon and can result in significant symptoms requiring hospitalisation and emergency treatments.

Data on exact proportion of poisoning due to these toxic plants are not available in India.

The cells of the Dieffenbachia plant contains needle shaped calcium oxalate crystals called raphide (**Figure 1**).² If the leaf is chewed, these crystals can cause temporary burning of the area with which contact has occurred. It may even cause erythema and oedema of the contact area.

Contact with the plant may cause host of unpleasant symptoms ranging from mild burning sensation to severe irritation and drooling of saliva.



Figure 1. Dieffenbachia plant

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Our patient had swelling of the tongue and excessive salivation which was thick and difficult to spit out, leading to temporary dumbness which was relieved after symptomatic therapy.

Prolonged contact may lead to severe swelling of tongue and airways leading to respiratory embarrassment. Airway obstruction in dogs has been reported following *Dieffenbachia* ingestion due to severe oropharyngeal swelling requiring temporary tracheostomy.

Dumb cane poisoning in cats has also been reported in the literature. Single case report exists of a dog fatality caused by airway obstruction following ingestion of dumb cane leaves.³

Mild toxicity is reported in children following accidental ingestion.⁴ However no fatalities were reported so far in human beings. Acute airway compromise has been reported in both adults and paediatric age groups following chewing of the stem or leaves of the plant. Severe oedema of the glottis with occlusion of the upper airways can occur with large amount of sap squeezed from the leaf by intense chewing.

Treatment consists of symptomatic and supportive care. Those with severe airway compromise may require intubation and ventilation.

Prognosis of this plant poisoning depends on the amount of substance consumed and the time between consumption and treatment.

Generally the outcome is good, however, in cases with severe symptoms, it may worsen the outcome and prolong the hospital stay and recovery.

Nevertheless, no life-threatening complications are generally noted.

CONCLUSION

Poisoning due to *Dieffenbachia* plant (dumb cane) is uncommon. It usually causes mild symptoms. However severe toxicity may require hospitalisation and symptomatic therapy.

END NOTE

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