

# ***DIEFFENBACHIA AMOENA* POISONING IN A GOAT - A CASE REPORT**

**Deepa Chirayath, V.R. Ambily and V.S. Amrutha**

Department of Clinical Veterinary Medicine, College of Veterinary and Animal Sciences,  
Mannuthy - 680 651

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## **ABSTRACT**

*Dieffenbachia amoena*, commonly known as 'Dumbcane' is a popular monocot of *Araceae* family, which is cultivated as a houseplant for its ornamental leaves. *Dieffenbachia spp.* contains calcium oxalate crystals and unknown toxic proteins (possibly asparaginase and protoanemonin) in all parts including sap. Accidental ingestion of this plant will lead to immediate intense pain, burning sensation, inflammation of mouth and throat, anorexia, vomiting and possibly diarrhea. The present paper describes a case of *Dieffenbachia* poisoning in a goat and its successful management.

## **INTRODUCTION**

*Dieffenbachia amoena*, commonly known as 'Dumbcane' is a popular monocot of *Araceae* family, which is cultivated as a houseplant for its ornamental leaves (Fig.1a). Its leaves are large (up to 20 inches), oblong, with cream or yellow dots and stripes with deep green stripes and bands around the outer edge. The plant cells contain needle-like crystal of insoluble calcium oxalate which penetrate the skin and mouth causing discomfort. In addition, the plants contain proteolytic enzymes which release histamine and

kinins, which causes swelling and itching or burning sensation.

## **CASE HISTORY AND OBSERVATION**

A female goat (aged 2 years, weighed 30 kg) was presented to the University Veterinary Hospital Kokkalai with a complaint of salivation, protrusion of tongue and difficulty in swallowing for two days after consumption of the leaves of an ornamental plant in their garden. The owner brought a leaf of the plant (Fig.1b). The leaf was identified as of *Dieffenbachia amoena*. On examination, physical parameters were in normal range. Tongue and mucosa of oral cavity were oedematous (Fig.2). There was drooling of saliva and difficulty in closing the mouth fully.

## **TREATMENTS AND DISCUSSION**

From the history and clinical signs, the case was diagnosed as *Dieffenbachia* poisoning. The animal was treated with pheniramine maleate @ 1 mg/kg body weight intramuscularly and dexamethasone @ 0.2 mg/kg body weight intravenously. Boric acid glycerine was given from the pharmacy for application in the oral cavity. By the next day onwards the swelling was reduced gradually and by fourth day, the animal had started taking diet normally.

*Dieffenbachia spp.* contains calcium oxalate crystals and unknown toxic proteins (possibly asparaginase and protoanemonin) in all parts including sap. Accidental ingestion of this plant will lead to immediate intense pain, burning sensation, inflammation of mouth and throat, anorexia, vomiting and possibly diarrhea. The animals will show salivation, head shaking and protrusion of tongue and dyspnea (Kahn and Line, 2010). Very severely affected animals may experience oral swelling to the point that swallowing and breathing become impaired. Typically, this animal was not severely affected, since a few bites of this plant are often a sufficient deterrent to further consumption. The present case responded to antihistaminic and anti-inflammatory drugs.



**Fig. 1. a.** *Dieffenbachia amonea* plant.



**Fig. 1. b.** Leaf of *Dieffenbachia amonea*



**Fig. 2.** Goat affected with *Dieffenbachia* poisoning showing protrusion of tongue

#### REFERENCE

Kahn, C.M. and Line, S. 2010. *The Merck Veterinary Manual*. Merck & Co. INC. USA. 2945p.

