

# ACUTE *LANTANA CAMARA* POISONING IN GOATS - A CASE REPORT

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## ABSTRACT

*Lantana camara* is an exotic ornamental plant which contains the toxic principle, lantadene. Toxic doses of lantadenes can cause bile canalicular damage and intrahepatic cholestasis and jaundice in cattle, sheep and goat. The present paper describes two clinical cases of acute *Lantana camara* poisoning in goats and their successful management.

**Keywords:** Lantana poisoning, cholestasis

## INTRODUCTION

*Lantana camara*, commonly known as 'Kongini' in Malayalam is an exotic ornamental shrub of Verbanaceae family. It is considered as an invasive plant in Kerala (Ayyappakutty *et al.*, 2013). The most important toxic principle of *Lantana camara* is lantadene A, which is a pentacyclic triterpene acid. Lantadenes cause toxicity in cattle, sheep and goat.

## CASE HISTORY AND OBSERVATIONS

Two crossbred female gray coloured goats (aged 2 and 3yr) of the same owner were presented to the University Veterinary Hospital, Kokkalai with a complaint of anorexia and orange coloured urine for past three days. History revealed that the animals were fed with fresh *Lantana*

*camara* (red flowered variety) plants (Fig. 1) by the owner, unknowingly four days before. The animals became anorectic from the next day onwards. They were treated with fluids and antibiotics in the local veterinary dispensary.

On examination, the animals were dull, recumbent and mucous membranes and skin were icteric. The animals were showing discomfort and abnormal behaviour when taken to sunlight. Physical parameters were in the normal range. Haematology results revealed leucocytosis and mild anemia (Mean values were WBC- $39.2 \times 10^3/\mu\text{l}$ , RBC- $14.02 \times 2 \times 10^6/\mu\text{l}$ , Hb-5.2g/dl, PCV-24.5%, MCV-17.5fl, MCH-3.7pg and MCHC- 21.2g/dl). Biochemistry results were as follows, Creatinine-1.22mg/dl and 0.398 mg/dl; ALT- 3.63 IU/L and 12.38- IU /L; ALP-780 IU/L and 70 IU/L; GGT- 4.49 IU/L and 39 IU/L, Total bilirubin- 30.50mg/dl and 7.36 mg/dl and direct bilirubin- 3.962 mg/dl and 1.39mg/dl.

## TREATMENT AND DISCUSSION

From the history, clinical signs and clinical pathology findings, the cases were diagnosed as *Lantana* poisoning. The animals were treated with intravenous fluids mixed with B complex vitamins and intramuscular injections of liver stimulants and prednisolone @ 1mg/ kg body weight

for six days. By the fifth day, animals had started taking diet and became normal by two weeks.

Lantadenes can cause damage to bile canaliculi, gall bladder paralysis and intrahepatic cholestasis leading to jaundice, photosensitization and ruminal stasis (Constable *et al.*, 2017). In the present case,



**Figure 1.** Leaves and flowers of *Lantana camara* plant

the animal had consumed the leaves of lantana four days before and already started showing symptoms like jaundice

and photosensitization. The clinical signs agree with the previous report of lantana poisoning in goats (Ide and Tutt, 1998). *Lantana camara* can cause secondary (hepatogenous) photosensitization due to the accumulation of phylloerythrin in the system due to the compromised liver function. Normally chlorophyll is metabolized to phylloerythrin by bacteria and absorbed from gut and taken into liver for conjugation and excretion through bile.

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