A Study on Clinical Presentation, Treatment and Prognosis of Poisoning By Cleistanthus Collinus

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I. Background

- Cleistanthus collinus is a shrub called by various names like Vadisaku, Oduvan, Kadaise and Oduku and many more.
- Due to its easy availability it is a notoriously common poison consumed in various states of South India.
- All parts of the plant are poisonous. Leaves are the commonly consumed part.
- The toxic principles of the plant contain cardiac glycoside activity.
- Cleistanthin A and b, collinusin and diphyllin are the active principles present in the plant.
- They have inhibitory effect to the atpase enzyme and to glutathione.
- Their toxicity is exerted on renal tubules leading to renal tubular acidosis.

II. Objectives

- To study the clinical profile of patients presenting with vadisaku poisoning
- To study the response to treatment and the prognosis of patients with vadisaku poisoning.

III. Materials and Methods

- Study design - retrospective study
- Study subjects - cases with confirmed consumption of vadisaku poison.
- Study sample - 56 cases
- Study period - for a period of 6 months from January-June of 2019

IV. Results

- Out of 56 cases studied, 24 (57%) are males and 32 (43%) are females
- Maximum number of patients lied between the age of 40-50 years.
- Most of them were asymptomatic at the time of presentation and most of them remained asymptomatic throughout the observation period.
- 10 Patients died despite adequate treatment. Of which 7 out of 10 were men.
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Outcomes
SEX DISTRIBUTION:

AGE DISTRIBUTION

CLINICAL FEATURES AT PRESENTATION
V. Results (Cont)

- In our study out of 56 cases, only 24 (57%) were male, showing male preponderance in suicidal ideation. AND COMPLICATIONS AND DEATHS WERE MORE AMONG MALE SEX.

- In a similar study conducted by ALLADI mohan et al 3, ALSO SHOWED SIMILAR MALE PREDOMINANCE.

- MOST OF THEM WERE ASYMPTOMATIC AT PRESENTATION, THEY WERE CLOSELY MONITORED DURING THEIR COURSE OF STAY.

- FEW PATIENTS WHO WERE ASYMPTOMATIC AT PRESENTATION DEVELOPED SOME COMPLICATIONS LATER.

RESULTS(CONT)
- MOST COMON COMPLICATION DEVELOPED WAS HYPOKALEMIA, WITH ECG SHOWING ST-T CHANGES AND SERUM LEVELS OF POTASSIUM CORRELATING WITH ECG CHANGES. SIMILAR RESULTS WERE OBSERVED IN OTHER STUDIES.1,2,3,4

- THEY WERE TREATED WITH POTASSIUM SUPPLEMENTS AND SYMPTOMATIC TREATMENT WAS GIVEN FOR ABDOMINAL PAIN AND VOMITING

RESULTS(CONT)
- THOSE WHO DEVELOPED METABOLIC ACIDOSIS WAS TREATED WITH BICARBONATE SUPPLEMENTATION.
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• AND PATIENTS WHO ENDED UP IN ARDS WAS INTUBATED AND MANAGED SYMPTOMATICALLY.

• PATIENTS WHO PRESENTED WITH SHOCK AND METABOLIC ACIDOSIS OR DEVELOPED THE ABOVE IN THE COURSE OF TIME INVARIABLY DIED DESPITE ADEQUATE TREATMENT.

• CERTAIN STUDIES HAVE SHOWED THAT USAGE OF N-ACETYLCYSTEINE HAVE SHOWN BETTER OUTCOMES IN PATIENTS WHO DEVELOPED SHOCK AND ARDS.4

VI. Conclusion

• Cleistanthus collinus IS A HIGHLY LETHAL COMPOUND WITH NO ANTIDOTE.

• PATIENTS CAN PRESENT FROM ASYPTOMATIC CONSUMERS TO SEVERE RESPIRATORY DISTRESS, SHOCK, CARDIAC ARRYTHMIAS AND DEATH.

• CAREFUL MONITORING AND APPROPRIATE INITIATION OF TREATMENT IS OF UTMOST IMPORTANCE IN SAVING PATIENTS LIVES.

Reference


