

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. 1
- 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.1
- They have inhibitory effect to the *atpase* enzyme and to *glutathione*2
- 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

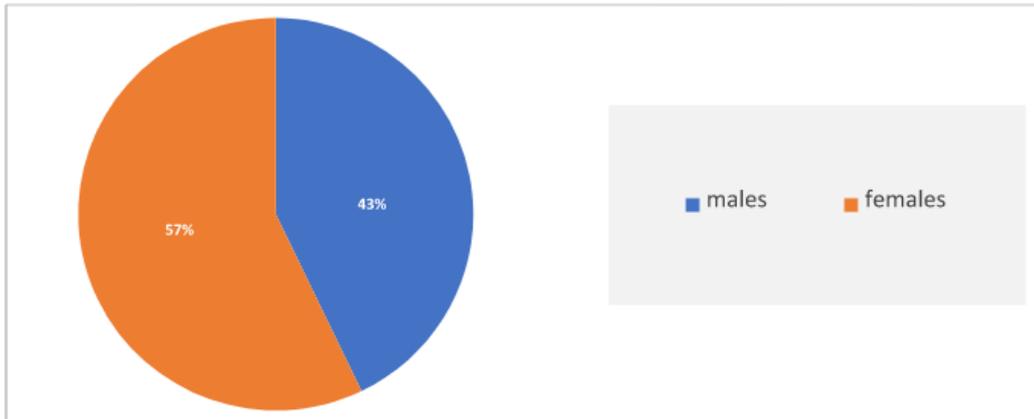
- Study design- retrospective study
- Study subjects- cases with confirmed consumption of vadisaku poison.
- Study sample- 56 cases
- Study period- for a period of 6 months from January-June of 2019

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

Outcomes

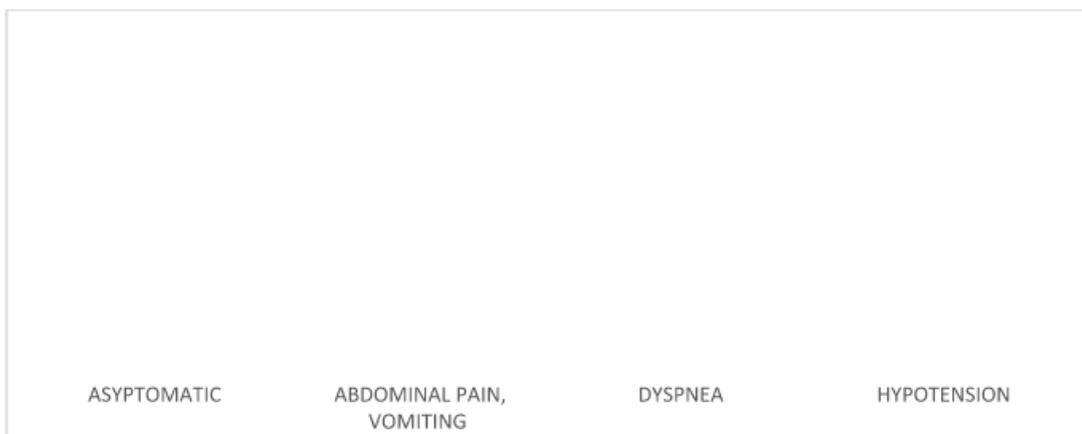
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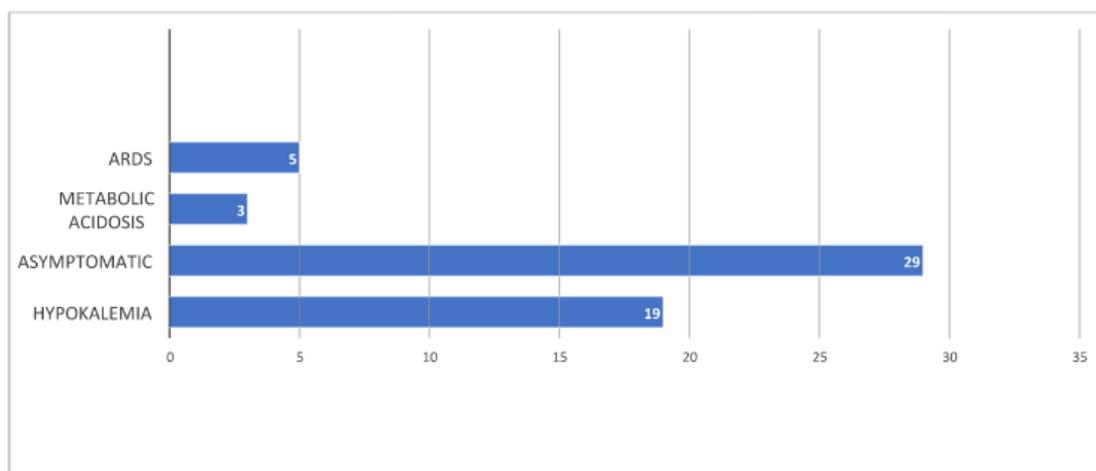
AGE DISTRIBUTION

21-30 31-40 41-50 51-60 >61

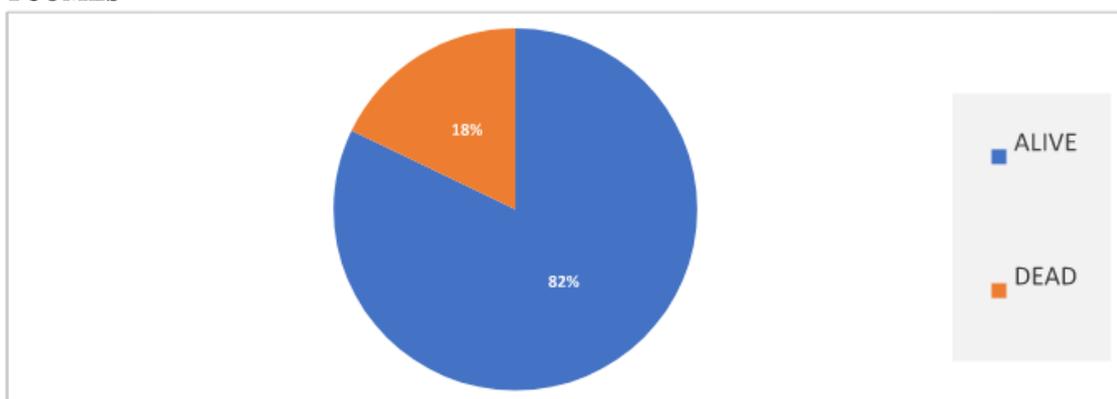
CLINICAL FEATURES AT PRESENTATION



COMPLICATIONS



OUTCOMES



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 COMMON 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.

•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-ACETYL CYSTEINE 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

- [1]. DKS Subrahmanyam, T Mooney, R Raveendran, B Zachariah. A Clinical and Laboratory Profile of Cleistanthus collinus Poisoning:J assoc physicians india, nov 2003,51: 1052-1054.
- [2]. S Arthanareeswaran, Shabana S, Femi Babu K, Daliya J Manjaly. Int j med research. Volume 3; Issue 4; October 2018; Page No. 47-48.
- [3]. Alladi Mohan, G. Sivaram Naik, J. Harikrishna, D. Prabath Kumar AND ET AL. INDIAN J Med Res 143, June 2016, pp 793-797.
- [4]. SPE Benjamin, M Edwin Fernando, J Jerene Jayanth, B Preetha. JAPI • VOL. 54 • SEPTEMBER 2006:742-744.

Dr. Bayatapalle Divya. "A Study on Clinical Presentation, Treatment and Prognosis of Poisoning By Cleistanthus Collinus." IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 18, no. 10, 2019, pp 01-04.