[ID-P#066] Risk factors for the development of atrio-ventricular blocks (AVB) in acute yellow oleander (*Cascabela thevetia*) poisoning

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Objectives: The objective of the study was to determine the risk factors associated with development of AVB in acute yellow oleander poisoning.

Methods: A prospective cohort study was carried out at Teaching Hospital Batticaloa, Sri Lanka, from 1st July 2022 to 31st July 2023 among patients admitted following acute yellow oleander poisoning. The inclusion criteria were presence of any of the following signs: bradycardia (<60bpm), systolic blood pressure <80mmHg nausea, vomiting, abdominal pain, diarrheoa. Patients were recruited within two hours of admission. History was taken using interviewer-administered questionnaire. Serum creatinine (Scr.) and serum potassium were assessed at recruitment and every 6 hours, serial electrocardiograms were done at recruitment and every 4 hours for 1st 24 hours following admission. Relative risk (RR) was calculated to determine risk factors. Ethical clearance was granted by Ethics Review Committee of Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka.

Results: Of the 200 consenting symptomatic patients (63.5% male) recruited, 6.0%(n=12), 8.0%(n=16) and 4.0%(n=8) patients developed 1st, 2nd and 3rd degree AVB respectively. Temporary cardiac pacing (TCP) was done in 8.0%(n=16) patients and 1.5%(n=3) died due to 3rd degree AVB. Case fertility rate was 8.33 %. Bradycardia, hyperkalemia and high Scr. were observed in 63.5%(n=127), 33 %(n=66) and in 12%(n=24) patients respectively. The risk factors for development of AVB were; hyperkalemia (RR 2.87;95%CI 1.56-5.29), bradycardia (RR 2.24; 95%CI 0.85-5.94), high Scr. (RR 2.44; 95%CI 1.31-4.55), presence of reverse tick-sign of digoxin effect (RR 3.5; 95%CI 2.02-6.08), consumption of alcohol prior to ingestion of oleander seeds (RR 1.06; 95%CI 0.55- 2.04), having meal prior to ingestion (RR 1.43; 95%CI 0.78-2.60) and ingestion of crushed seeds (RR 1.56; 95%CI 0.86-2.83).

Conclusion: Identifying the risk factors is important for close monitoring of patients with acute oleander poisoning, as they may require interventions such as TCP or an antidote.