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## Clinical Manifestations and Management of Amitraz Poisoning: A Case Series from a Tertiary Care Hospital in South India

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**Aim and objectives:** This study aimed to elucidate the clinical characteristics, management strategies and outcomes of Amitraz poisoning cases in a tertiary care hospital in South India.

**Methodology:** A retrospective analysis of Amitraz poisoning cases was conducted, utilizing medical records over specified duration of time. Clinical presentations, adverse events, interventions and outcomes were extracted and analysed.

In this case series, we report on three distinct presentations of Amitraz poisoning treated at our Emergency Department (ED):

**Case 1:** A 17-year-old male voluntarily ingested 12 ml of a 37.8 mg/kg Amitraz solution with suicidal intent. Subsequently, he developed drowsiness and underwent gastric lavage at a General Hospital before being referred to our center. Upon arrival, crash intubation was conducted due to gasping and compromised airway. Vitals post-intubation were stabilized, and further evaluation showed no major abnormalities. The patient was extubated the following day and discharged after observation.

**Case 2:** A 24-year-old female consumed approximately 20 ml of the same concentration of Amitraz solution and presented with gastrointestinal symptoms. Despite initial hemodynamic stability, she developed tachycardia and hypotension, successfully managed with fluid resuscitation. She was discharged after 24 hours of observation and psychiatric consultation.

**Case 3:** A 60-year-old male ingested 25 ml of Amitraz solution and was referred to our center more than 12 hours post-ingestion. He presented with vomiting and altered mental status, necessitating endotracheal intubation for airway protection. Subsequent investigations and arterial blood gas analysis guided ventilator setting adjustments. The patient was extubated the next day and discharged after achieving stable hemodynamics.

**Results:** The observed clinical manifestations of Amitraz intoxication—ranging from impaired consciousness to respiratory distress—can be attributed to its agonist action on alpha-1 and alpha-2 receptors. While