

## Evaluation of the Toxicologic Cases in Emergency Service

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### ABSTRACT

Poisoning is the absorption of chemical, physical, or organic substances into the body by the gastrointestinal tract, skin, mucosa or respiratory tract or by injection, causing toxic effects and cell, tissue and organ damage. This is a major public health problem that causes many of the emergency admissions. Toxic exposure can be with a wide clinical picture.

**Keywords:** Toxicologic cases; Medicinal drugs; Poisonings

### DESCRIPTION

Poisonings is an important public health problem that constitutes an important part of emergency service applications and can lead to serious health consequences [1,2]. Toxicological cases admitted to the emergency department include suicide, chemical substances poisoning, CO poisoning, food poisoning, alcohol poisoning, substance intake and etc. are situations.

Poisoning events in general; prescription or over-the-counter use occurs due to patient-initiated medication iatrogenic administration of high-dose drugs, accidental exposure to chemicals or deliberate ingestion of biological agents for suicide. Medicinal drugs are the most common (47%-86%). Among medicinal drugs, paracetamol, non-steroidal anti-inflammatory and antidepressants are mostly seen. Preventable adverse drug events (ADEs) are a common cause of ED visits, hospitalizations and death [3].

In our study in which those who applied to the Adult Emergency Service of the University Hospital were examined, 3.25% of 3879 forensic cases who applied to the Adult Emergency Service were Poisoning Cases. Of these, 57.14% were suicidal, 23.0% chemical substances poisoning, 12.70% CO poisoning, 7.93% food poisoning, 2.38% alcohol intoxication, 1.59% substance intake. The highest drug intake was 45.83% antidepressants, paracetamol 16.67%, nonsteroidal anti-inflammatory drugs (NSAID) 12.50%, antipsychotics 10.42%, benzodiazepine 8.33%, and antibiotics 6.25%. It has been shown that 37.50% of antidepressants are selective serotonin reuptake inhibitors (SSRIs) and 8% are tricyclic antidepressants [4].

Over-the-counter analgesics are often used in suicide attempts. An analysis of suicide attempts presenting to the emergency department in Montreal two hospitals between 2009 and 2010. The most commonly used drugs in the study: acetaminophen (30%), antidepressants (37%), anxiolytics (30%), opioids (10%) and anticonvulsants (9%) were found among prescription drugs, cocaine (10%) was observed among drugs and recreational drugs.

It was seen that 16.7% of the patient were kept under observation with only symptomatic treatment while gastric lavage activated charcoal, gastric lavage, activated charcoal, antidote were applied in 83.3% of them. In most emergency departments, poisoning treatment is similar. Patients admitted to emergency services are initially evaluated for vital signs. Gastric lavage is performed properly and activated charcoal is given.

Gummin DD shown in their study that Emergency Medicine Service physicians frequently used 15% antidotal therapy [5].

Poisoning cases are a major cause of mortality and morbidity today and are a serious public health problem. The high rate of senescence and renal function tests at the time of application is important for the development of chronic renal failure in patients who are followed up for poisoning and receive extracorporeal therapy. Evaluation of vital signs during emergency service admission is very important in predicting mortality and the need for mechanical ventilation. Also, blood gas, hematological and biochemical parameters are extremely important in predicting mortality during admission. Blood gas analysis should be performed in all patients presenting to the emergency department due to poisoning [6].

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## CONCLUSION

In our study, drugs such as antidepressants and analgesics, which were detected at high rates in poisonings, admitted to the emergency department, they are among the important cases that should always be monitored closely.

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