

Amitraz Poisoning Treated Successfully with Atropine

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Abstract

Very few cases have been reported with Amitraz as a suicidal agent from India. Here we present such a case treated successfully with atropine sulphate.

Introduction

Amitraz is an alpha-2 receptor agonist that belongs to the formamidine group of drugs. It is used for the treatment of demodicosis in dogs. Very less cases of intoxication have been reported in literature and most of the reported cases are from Turkey. Human intoxication cases may have clinical manifestations involving neurological, respiratory and cardiovascular systems. Our patient came with history of suicidal Amitraz ingestion and was successfully treated with parenteral atropine sulphate.

Case Report

A 28 year old male was brought in an agitated state with alleged history of Amitraz ingestion. Patient had consumed 4 ml Amitraz around 1 hour back following which he developed irritability. (12.5% w/v liquid Amitraz preparation). On examination, pulse was feeble and blood pressure was non-recordable, patient was drowsy and irritable with bilateral constricted pupil. Patient was started on atropine sulphate and we titrated the dose of atropine sulphate till the signs of atropinisation, following that patient

was started on maintenance dose of atropine. Other supportive measures like gastric lavage, proton pump inhibitors, iv fluids and hydrocortisone were given. Six hours following hospital stay, patient slowly regained consciousness. He become completely conscious and oriented after around 40 hours. Patient was discharged on 4th day after slow tapering of atropine.

Blood Investigation

Haemoglobin was 7.7 gm/dl, Total leukocyte count was 9,200/cumm, differential leukocyte count was polymorphs 78% and lymphocytes 20%, platelet count was 1.9/cumm lakhs, retic count was 2.1%, malarial parasite was negative, prothrombin time was normal, serum sodium was 138 mEq/L, serum potassium was 4 mEq/L. Renal and hepatic parameters were normal. Urinalysis was normal.

Imaging

Ultrasonography incidentally showed thickened edematous gall bladder and colitis.

Discussion

Since very few human cases have been reported, our knowledge in Amitraz poisoning is mainly based on animal studies. Most human cases have highlighted the reversible nature of this poisoning.² Clinical manifestation in previous reported cases includes vomiting, miosis, mydriasis, bradycardia, hypotension, hyperglycemia and CNS stimulation or depression and respiratory failure.³ Our patient presented with miosis and irritability. Clinical manifestation dramatically improved following parenteral administration of atropine sulphate. Patient gradually gained consciousness and become fully conscious and oriented after 40 hours. This justifies the use of atropine sulphate which might be a potential drug for the treatment of Amitraz poisoning in coming future.

References

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