



Buprofezin: An Unusual Insecticide Poisoning

Shaguftha S, Reddenna L*, Pavan Kumar E and Sreedhar V

Department of Pharmacy Practice, Balaji College of Pharmacy, India

Abstract

A 44-year-old male presented with deliberate self-harm using buprofezin, an unknown substance in human toxicology. He developed high cough, tongue fasciculations, myalgia, giddiness and burning sensation in epigastric region. He reverted to normal after 5 days and was discharged. Although claimed to be low toxic to humans, buprofezin and insecticide, could cause tongue fasciculations and burning sensation in epigastric region. To the best of our knowledge, this is the first case of buprofezin poisoning reported in the medical literature.

Keywords: Buprofezin; Insecticide; Poisoning; Self-harm

Introduction

Insecticide poisoning is a widespread modality of intentional self harm in India. The manifestations of normally used insecticides are well premeditated and reported. Here we present a case of intentional self harm with buprofezin, a novel insecticide manifesting with tongue fasciculations and burning sensation and review the possible mechanisms behind the same.

Case Report

A 44-year-old male presented to the Department of Emergency with alleged history of having deliberately consumed about 200 gm of an insecticide buprofezin (Figure 1). He had high cough, tongue fasciculations, myalgia, giddiness and burning sensation in epigastric region, following consumption of the poison. He had no previous medical comorbidities.

On examination, his temperature was 98.4°F, blood pressure was 190/120 mmHg, and heart rate was 84 beats/min. His respiratory rate was 22 breaths. His cardiac examination and other examinations including vomiting, loose motions, high cough, tongue fasciculations, myalgia, giddiness and burning sensation in epigastric region. He was given a gastric lavage in emergency and transferred him to the ward for observation. He had normal complete blood counts and metabolic parameters. Her coagulation parameters, thyroid functions, and chest X-ray were also normal.

He was administered 1.2 gm of atropine as an intravenous bolus to revert to sinus rhythm, 1 gm of Pralidoxime chloride is an antidote that is used along with other medicines, 5 mg of amlodipine to revert to normal blood pressure, 40 mg of pantoprazole to revert burning sensation in epigastric region, 4 mg of Ondansetron to revert vomiting. He was discharged subsequently after a counseling session.

OPEN ACCESS

*Correspondence:

Reddenna L, Department of Pharmacy Practice, Balaji College of Pharmacy, Ananthapuramu, 515001, India, Tel: 919866124220; E-mail: reddennapharmd@gmail.com

Received Date: 12 Dec 2018

Accepted Date: 11 Jan 2019

Published Date: 14 Jan 2019

Citation:

Shaguftha S, Reddenna L, Pavan Kumar E, Sreedhar V. Buprofezin: An Unusual Insecticide Poisoning. *Ann Clin Case Rep.* 2019; 4: 1577.

ISSN: 2474-1655

Copyright © 2019 Reddenna L. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

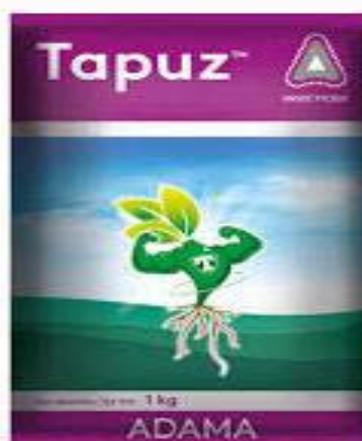
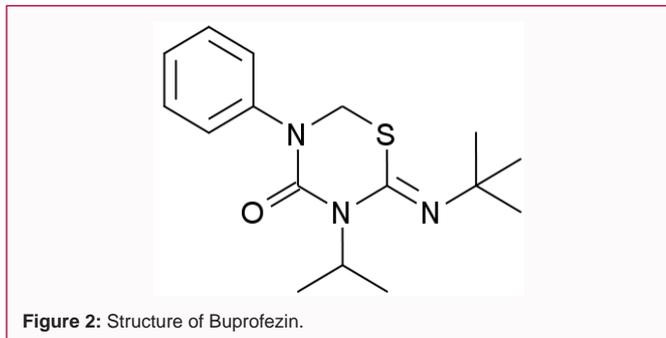


Figure 1: Packet of the insecticide alleged to have been consumed by the patient.



Discussion

Buprofezin is an insecticide that acts by the inhibition of chitin synthesis. It is used for control of insect pests such as mealybugs, leafhoppers and whitefly on vegetable crops. The manifestations of normally used insecticides are well premeditated and reported. To the best of our knowledge, there have been no previous case reports of buprofezin poisoning in humans. We presume that tongue fasciculation might be one of the various manifestations of buprofezin. We suggest reporting of the various clinical manifestations of this compound in future for further understanding of its effects (Figure 2) [1,2].

Conclusion

There is an expedition among researchers to discover insecticides with high selectivity so that it is nontoxic to humans. Although it can be claimed that they are partially successful based on animal experiments, one cannot be sure of its complete safety in humans. Buprofezin is one such compound with such claims, which has presented with momentous toxic manifestations though not lethal in this present case. This emphasizes the need to advance any unknown poisoning holistically to recognize subtle manifestations which have not been reported by experimental studies.

References

1. Bartolomé J. Buprofezin. Residue study (processing) with buprofezin 250 g/kg WP applied to indoor tomatoes in Spain in 2008. Huntingdon Life Sciences Ltd, Huntingdon, Cambridgeshire, UK. 2008.
2. Determination of residues of buprofezin in vegetables by GC/MS. AgriSolutions Australia Pty Ltd, Deception Bay, QLD, Australia. Laboratory Method ALM-044, Project no HVG04072, Study no AVG270, 8 March 2005.