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Case Report

Lambda-Cyhalothrin: An Unusual Pyrethroid Poisoning

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Abstract: A 40-year-old male presented with deliberate self-harm using Lambda-cyhalothrin, an unknown substance in human toxicology. He developed high cough and abdominal pain. He reverted to normal after 3 days and was discharged. Although claimed to be low toxic to humans, Lambda-cyhalothrin an Pyrethroid insecticide, could cause excessive salivation, fatigue, high cough and abdominal pain. To the best of our knowledge, this is the first case of Lambda-cyhalothrin poisoning reported in the medical literature.

Keywords: best Lambda-cyhalothrin, Insecticide, Poisoning, Pyrethroid, 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 Lambda-cyhalothrin, a novel insecticide manifesting with high cough and abdominal pain and review the possible mechanisms behind the same.

CASE REPORT

A 40-year-old male presented to the emergency department with alleged history of having deliberately consumed about 500 gm of an insecticide Lambda-cyhalothrin (Fig-1). He had excessive salivation, fatigue, high cough and abdominal pain, following consumption of the poison. He had no previous medical comorbidities.

Fig-1:Packet of the insecticide alleged to have been consumed by the patient

On examination, his temperature was 98.4°F, blood pressure was 130/80 mmHg, and heart rate was 80 beats/min. His respiratory rate was 17 breaths. His cardiac examination and other examinations including high cough and abdominal pain. 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 4 mg of dexamethasone as an intravenous injection to revert any repiratory inflammation, 40 mg of pantoprazole is an anti-ulcerative. Hhe was discharged subsequently after a counseling session.

DISCUSSION

Lambda-cyhalothrin is an Pyrethroid insecticide that acts by mimic the structure and insecticidal properties of the naturally occurring insecticide pyrethrin. Lambda-cyhalothrin is a mixture of isomers of cyhalothrin. It is used for control of insect pests on rice 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 Lambda-cyhalothrin poisoning in humans. We presume that excessive salivation might be one of the various manifestations of Lambda-cyhalothrin. We suggest reporting of the various clinical manifestations of this compound in future for further understanding of its effects ("Lambda-cyhalothrin

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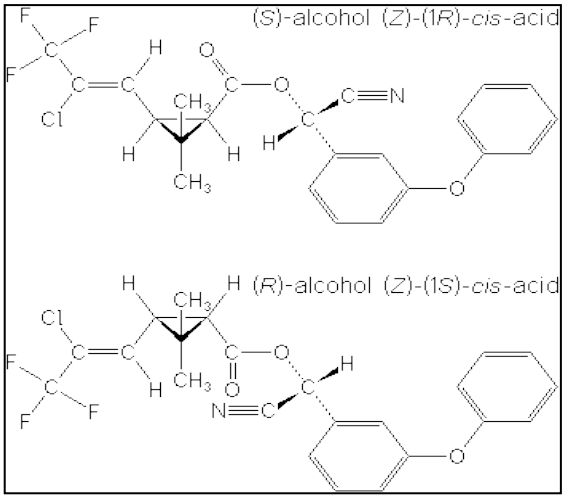

Fig-2: Structure of Lambda-cyhalothrin

CONCLUSION

There is a expedition among researchers to discover insectiides 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. Lambda-cyhalothrin 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.

Conflict of interest: None declared.

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