



Detection of Fipronil in Postmortem Case

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Abstract:

Presentation: Fipronil is abroad spectrum N-phenylpyrazole insecticide being used with an objective of controlling insect pest. It has been reported to cause toxic manifestation particularly in gastrointestinal and central nervous system. Although toxicity caused by it not commonly detected in human, in this reported case a chronic toxicity of it was achieved by oral ingestion of cockroach killing bait powder, containing fipronil (0.5 g/kg), mixed with food.

Case report: A suspected case, with abnormal death and negative autopsy, 33-years old male. In months prior to his death, the deceased was complained of abdominal pain, weakness, nausea, vomiting agitation and seizures. Although he went to hospital, but no one know that he had fipronil intoxication. Only he managed with anti-emetic and anti-spasmodic drugs. The corpse was removed from the grave five days after the burial. Fipronil was identified qualitatively by thin layer chromatography through acidic extraction of visceral samples obtained from the autopsy by ammonium sulfate method then the extraction applied on silica gel plate (silica gel 60 GF 254 for TLC, ADVENT) by hematocrit 75 mm capillary tube. Several elution systems (acetone or petroleum ether/ acetone as mobile phase) were used and finally the plates were visualized by fast blue b salt or furfural reagents, then confirmed by TLC-MS (Advion, USA).

Conclusion: Based on the toxicological finding and case



investigation, the cause of death was determined to be fipronil intoxication due to long time ingestion of food intentionally mixed with it.

Biography

Ola Badr Abo El Nil is a doctor and works as Lecturer in Theodor Bilharz Research Institute (TBRI), Giza, Egypt. She holds MD degree (2019) in Clinical Pathology with speciality in Hematology and Blood Banking, Cairo University. Ola has been graduated on 2004, worked as resident of clinical pathology and blood banking on 2006 and had her Masters degree in Clinical pathology on 2011. And since that date to 2019 worked as Assistant Researcher in TBRI and Infection Control Practitioner after Infection Control Diploma. She have private practice in more than a lab as Lab Manager and Developer.

Ola has many lectures for continuous learning for young Researchers in TBRI. Ola is an Egyptian doctor interested in continuous learning and training of young practitioners and laboratory managing.

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