LETTER TO EDITOR (VIEWERS CHOICE)

IMIDACLOPRID POISONING RESULTING IN DEATH

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A 15 years old girl was referred to our hospital with history of consumption of some insecticide poison. She had consumed the poison about 16 hours prior to admission to our hospital. She was first taken to a nearby hospital where she was suspected to have consumed organophosphorus poison and was given stomach wash and treated with atropine before referring to our hospital. On admission she was irritable with dystonic movements. Her vitals were stable with very minimal oral secretions. Her pupils were bilaterally mid-dilated sluggishly reactive to light. She was maintaining saturation at room air. Examination of cardiovascular and respiratory system was within normal limits. She was shifted to pediatric intensive care unit (PICU) and given stomach wash and her clothes were changed. She received symptomatic treatment. The poison she had consumed was Confidor® which contains imidacloprid. Within few hours her condition deteriorated. She became stuporous with shallow breathing and her oxygen saturation was dropping even with supplemental oxygen. She was intubated and connected to ventilator. Blood gases, renal functions, blood glucose, coagulation profile, pseudocholinestarase were normal. In the next few hours, she went into shock and was put on ionotropic support. However she succumbed inspite of all resuscitative efforts.

Imidacloprid, is a synthetic nicotinoid insecticide which has become an important pest control agent on many crops. The neonicotinoid insecticides are related to nicotine in their structure and action at the nicotinic acetylcholine receptor. (1) It is commonly used on rice, cereal, maize, potatoes and vegetable. Imidacloprid is most active against suckling insects because of their

unique plant-systemic and translaminar properties. It appears to act like acetylcholine, by exciting specific nerve cells. There is also some evidence, however, that imidacloprid has multiple agonist and antagonist effects on neuronal nicotinic acetylcholine receptor channels of clonal rat phaeochromocytoma cells. (2) According to literature, it is fairly non-toxic in human-beings. Signs and symptoms of poisoning would be expected to be similar to nicotine and include fatigue, twitching, cramps and muscle weakness. (3 -7) Till date, there are hardly any deaths reported due to imidacloprid poisoning and rarely in children. (4,6) Thus, toxicity can occur with imidacloprid, which is regarded as safe for humans.

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