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Letter to Editor

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Organochlorine Poisoning

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Dear Editor,

Pesticide (agricultural medicine) is a chemical, biological and disinfectant type of substance used to eliminate the effects of harmful organisms. Pesticides: They can be grouped as insecticides (insecticide-organophosphates, organochlorines, carbamates), herbicides (plant killers-paraquat) and rodenticides (rat killers-warfarin derivative drugs). As general information, when it comes to agricultural pesticides, the first thing that comes to mind is organophosphates. However, it should be known that not every agricultural pesticide is an organophosphate group.

Organochlorine compounds (Dichlorodiphenylethanes-DDT, methchlor), cyclodienes (aldrin, endosulfan) and cyclohexanes (hexachlorobenzene, lindane) are from the same group and have a high effect on the nervous system. They show their effects on the nervous system through sodium-potassium channels, neuronal ATPase inhibition and GABA antagonism. Nausea, vomiting, gait disturbance, headache, lethargy and convulsions may be observed in the clinic. There is no definitive diagnosis, but the diagnosis should be confirmed by history. There is no antidote treatment, supportive treatment is required. Diazepam, phenobarbital and anesthetic drugs can be used to stop convulsions. Since these compounds are lipophilic, hemodialysis and hemoperfusion treatment are not beneficial.

Cases

Five cases were brought to the emergency room with complaints of nausea, vomiting, abdominal pain, changes in consciousness and body convulsions after eating a meal. It was learned from their medical history that the meal prepared for suicide purposes contained agricultural pesticides.

Case 1

A 37-year-old female patient was in poor general condition, unconscious, had a Glasgow coma scale of 7, BP: 110-70 mmHg, pulse: 90 min, respiration: 30 min, was agitated and had tonic-clonic seizures. Other physical findings were normal. The patient was intubated and placed on mechanical ventilation for monitoring. Diazepam 10 mg and phenytoin 250 mg were started for seizures. No abnormalities were detected in the patient's laboratory tests. The non-contrast brain tomography was normal. The patient was admitted to the reanimation unit for follow-up and treatment. The patient was sedated and placed on mechanical ventilation for monitoring. She died on the 3rd day of her hospitalization.

Case 2

A 2-year-old girl was confused, had tonic-clonic seizures. The patient was discharged after 2 days of intensive care and ward follow-up with supportive treatment, diazepam and phenobarbital.

Case 3

A 4-year-old girl was confused, had tonic-clonic seizures. The patient was discharged after 2 days of intensive care and ward follow-up with supportive treatment, diazepam and phenobarbital.

Case 4

A 5-year-old woman was conscious and had nausea and vomiting. She was discharged after 1 day of supportive treatment.

Case 5

A 7-year-old woman was conscious and had nausea and vomiting. She was discharged after 1 day of supportive treatment.

Conclusion

Since there are no definitive diagnostic tests in pesticide poisoning, the diagnosis should be confirmed with anamnesis. Patients should be followed up with symptomatic and supportive treatments, considering that there will be different groups of pesticides. It should not be forgotten that there will be different clinics between life and death depending on the dose taken [1-3].

References

1. Sarıtaş A, Çakır Z, Aslan Ş (2007) Organophosphate and Carbamate Toxicity. Eurasian J Med 39: 55-60.
2. Yılmaz HL, Derme T, Yıldızdaş D, Alhan E (2009) Evaluation of childhood poisoning cases in Çukurova region. Nobel Med 5: 35-44.
3. Özkaya G, Çeliker A, Koçer-Giray B (2013) Insecticide poisoning and evaluation of the situation in Turkey. Turk Hij Den Biyol Derg 70: 75-102.