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Figure. Pesticide brought in by family members. Used with permission of David H. Jang, MD, New York University Medical Toxicology Fellowship, New York, NY.

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A 43-year-old woman presented to an emergency department (ED) with unresponsiveness. According to emergency medical services, the patient admitted to taking a handful of a “pesticide” in a suicide attempt. At that time, the patient’s vital signs and physical examination results were unremarkable. By her arrival to the ED, she had become confused and agitated and subsequently became unresponsive. The patient’s vital signs were as follows on arrival: blood pressure 110/65 mm Hg, pulse rate 75 beats/min, respiratory rate 11 breaths/min, rectal temperature 37°C (99°F) room air oxygen saturation 99%, and finger stick glucose level 132 mg/dL. The patient was immediately intubated for airway protection, at which time her airway was observed to be clear. She subsequently developed bradycardia (pulse rate of 46 beats/min), diaphoresis, miosis, and several episodes of diarrhea. The New York City Poison Control Center was contacted.

For the diagnosis and teaching points, see page 207.

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job in a more “peaceful” emergency department (ED): “out of sight, out of mind.” I admire Dr. Rich for his courage and strength, trying to make sense of the senseless. I would recommend this book to anyone who works in an ED. It is a heartfelt reminder of the humanity we should see in all of our patients.

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DIAGNOSIS:

Pesticide poisoning. Tres Pasitos (Figure) is a rodenticide that is commonly used within the Dominican community in New York City. It is a brown granular substance often sold in small plastic bags at neighborhood groceries. *Tres Pasitos* contains the cholinesterase inhibitor aldicarb, a highly toxic carbamate with an LD50 of 1 mg/kg in rats.¹ *Tres Pasitos* translates to “3 little steps,” which speaks to its effectiveness as a rodenticide. Although *Tres Pasitos* is illegal in the United States for use as a rodenticide, it has been associated with epidemics of aldicarb poisoning.² Similar poisonings with this particular rodenticide have occurred in Rio de Janeiro, Brazil.³

The clinical presentation of patients with aldicarb poisoning is nearly identical to those with organic phosphorus poisoning.⁴ Patients present with a cholinergic toxidrome that often includes at least one of the following: bradycardia, bronchorrhea, miosis, diaphoresis, or mental status change.² Although patients often require large doses of atropine,² the role of pralidoxime, a cholinesterase reactivator, is less clear in patients with carbamate poisoning. As opposed to organic phosphorus compounds, which undergo aging that is prevented by pralidoxime, carbamates are associated with spontaneous reactivation of the cholinesterase enzyme, limiting the usefulness of pralidoxime. Given the nearly indistinguishable initial clinical presentations of patients poisoned by a carbamate and organic phosphorus compound and the limited adverse-effect profile of pralidoxime, it is appropriate to administer pralidoxime early in the treatment of an aldicarb-poisoned patient.

REFERENCES

1. Risher JF, Mink FL, Stara JF. The toxicologic effects of the carbamate insecticide aldicarb in mammals. *Environ Health Perspect.* 1987;72:267-281.
2. Lima JS, Reis CAG. Poisoning due to illegal use of carbamates as a rodenticide in Rio de Janeiro. *J Toxicol Clin Toxicol.* 1995;33:687-690.
3. Nelson LS, Perrone J, DeRoos FJ, et al. Aldicarb poisoning by an illicit rodenticide imported into the United States: *Tres Pasitos*. *Clin Toxicol.* 2001;39:447-452.
4. Clark RF. Insecticides: organic phosphorus compounds and carbamates. In: Flomenbaum NE, Goldfrank LR, Hoffman RS, et al, eds. *Goldfrank's Toxicologic Emergencies*. 8th ed. New York, NY: McGraw-Hill; 2006:1497-1509.