

Letter to the editor, December 1998

by

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Permethrin spot-on products can be toxic in cats

Over-the-counter permethrin spot-on products for flea control have become increasingly popular. These products contain either 45% or 65% permethrin and are labeled for use on dogs only. Inappropriate application of these products to cats or close contact between cats and recently treated dogs can result in severe toxicosis. Premise sprays and pet flea sprays contain low concentrations of permethrin and generally do not pose a serious hazard in cats. But cats exposed to a permethrin spot-on product can develop life-threatening seizure activity within hours.

The American Society for the Prevention of Cruelty to Animals (ASPCA) Animal Poison Control Center recommends a treatment protocol involving tremor or seizure control, dermal decontamination, and supportive care. In our experience, severe neuromuscular activity in permethrin-exposed cats can be difficult to control and may not respond to diazepam alone. We have found that methocarbamol at a dose of 55 to 220 mg/kg intravenously is often effective. Administer one-third to one-half the dose as a bolus (not exceeding 2 ml/min), pause until the cat begins to relax, and then give the remainder to effect. If the tremors recur, methocarbamol can be repeated to a maximum daily dose of 330 mg/kg. For refractory seizures a combination of diazepam and methocarbamol may be required. Phenobarbital, pentobarbital, and even isoflurane have been used with variable success to control severe tremor and seizure activity. Complete cessation of tremors may not occur after initial treatment with methocarbamol.

Cats should be bathed with a mild hand dish detergent and given intravenous fluids. Initially monitor their body temperature closely for hyperthermia. But keep in mind that animals can rapidly become hypothermic once muscle activity is controlled. Hypothermia can exacerbate clinical signs and prolong recovery. Atropine is not antidotal and should be avoided. Most cats can be released 24 to 72 hours after early, aggressive treatment. No permanent effects are expected unless the animal experienced trauma, extreme hyperthermia, or hypoxia during seizure activity.

Permethrin toxicosis should be included as a differential diagnosis for any cat presenting with a sudden onset of severe hyperexcitability, tremors, or seizures. Every opportunity should be taken to educate clients on the responsible use of insecticidal products.

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