Human Amitraz Toxicity

Amitraz is a formamidine pesticide used in both agriculture and veterinary medicine. A retrospective study of 23 cases of adult toxicity revealed that 21 cases were caused by ingestion and 2 were from dermal contact. Many of the oral ingestions were suicide attempts. Patients presented most commonly with vomiting, altered consciousness, and drowsiness. Other clinical signs included bradycardia, hypotension, and mydriasis. Elevated levels of blood glucose and liver enzymes were noted on laboratory evaluation. Initial emergency room evaluations confused amitraz toxicity with carbamate and organophosphate toxicity in 9 of 23 cases. None of the patients died; supportive, symptom-specific treatment was given. Yohimbine was not used as an antidote.

COMMENTARY: The authors make a point of stating that before this article was published, most information on amitraz toxicity in humans came from information about accidental poisonings of children. There are several important take-home messages from this report. First, amitraz toxicity is not well-recognized in the medical profession and can be confused with carbamate or organophosphate toxicity. This product should never be repackaged. Second, most of the toxicities in this report were associated with attempted suicides. Because our profession does not knowingly deal with suicidal patients, few would give any thought to whether we were dispensing “suicide aids or means” to clients. Third, accidental toxicities via dermal contact can and do occur with use of this product. Thus, it should be used only under the direct supervision of a veterinarian, proper protective eyewear and clothing should be worn, and contact with the solution or wet animals should be avoided. Dermal exposure is best treated with immediate rinsing of the area. Clinical signs of human toxicity do not differ greatly from those reported in animals; any staff member having ill effects after applying amitraz should be taken for medical care.—Karen A. Moriello, DVM, Diplomate ACVD