



Metaldehyde Poisoning: No Sluggish Matter

This retrospective analysis detailed 772 cases of suspected metaldehyde slug bait ingestion between 1985 and 2010. Metaldehyde is a molluscicide ingredient with a poorly understood mechanism of toxicity. Disruption of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA) may cause seizures seen in metaldehyde toxicity. In 77.3% of dogs, clinical signs commonly included seizures, hypersalivation, twitching, hyperesthesia, tremors, vomiting, and ataxia. In those dogs with signs, increased muscular activity was most common (87%). GI, respiratory, and cardiac signs were less common. Of dogs with these signs, 22.4%, 13%, and 17.8%, respectively, showed no increased muscular activity, suggesting the ingested dose was too small to cause more serious signs or that there was another possible cause. Average onset of signs was 2.9 hours postingestion, with 50.3% of cases developing signs within 1 hour. Because ingestion often occurred from pellets scattered

on the ground, amount of ingestion was rarely known; the average fatal dose in the 6 cases where it was known was 11.8 g/kg. Approximately half of the reported cases occurred during the summer.

Treatments included gastric decontamination (eg, emesis, adsorbents, gastric lavage). Sedation was used in 64.2% of cases, including benzodiazepines, barbiturates, propofol, and acepromazine. Of those treated with sedatives, 45.8% required multiple sedatives. Methocarbamol was rarely used, likely because of unavailability. Of 762 cases with reported outcomes, 21.7% of cases remained asymptomatic, 61.7% recovered, and 16% died or were euthanized; the remainder had ongoing effects at follow-up examination. Mean recovery time in 61 cases was 39.3 hours.

■ Commentary

Metaldehyde intoxication is commonly

seen in the Pacific Northwest United States and California. The mainstay of tremor control (ie, injectable methocarbamol) is currently available in the United States as a compounded solution. This study demonstrated that these intoxicated dogs can be treated without methocarbamol (unavailable in the UK). The fatality rate was similar to that found in previous studies in which methocarbamol was available. Multiple pharmaceuticals (eg, benzodiazepines, barbiturates, propofol) may need to be combined to achieve the best clinical outcome.—*Tina Wismer, DVM, DABVT, DABT*

■ ■ Source

Suspected metaldehyde slug bait poisoning in dogs: A retrospective analysis of cases reported to the Veterinary Poisons Information Service. Bates NS, Sutton NM, Campbell A. *VET REC* 171:324, 2012.

Ins & Outs of Tarsometatarsal Arthrodesis

Tarsometatarsal joint luxation or subluxation occurs from disruption of the dorsal or plantar ligaments, with or without involvement of the collateral ligaments. Arthrodesis, the most common recommendation for managing this condition, can be achieved by using an intramedullary Steinmann pin and 2 cross pins; pin and tension band combination; linear or circular external fixation; or lateral, medial, or plantar bone plate fixation.

Tarsometatarsal intramedullary pin stabilization was used in 12 dogs and 3 cats with tarsometatarsal instability. Arthrodesis was achieved using intramedullary pins or wires traversing the metatarsal bones through the distal tarsal bones after the articular surfaces were removed. Patients

were treated with bone regeneration material in the joint space after cartilage debridement and additional stabilization provided by external coaptation. Pins were removed after radiographic evidence of arthrodesis. Of the 13 patients available for follow-up (mean, 107 weeks), 12 were apparently healthy; 1 dog walked normally but favored the leg when running. In contrast to implants, intramedullary pins required minimum tension for skin closure. Complications for tarsometatarsal arthrodesis include pin migration, implant breakage, pain, or degenerative joint disease, but these were not observed in this study.

■ Commentary

Although it is an uncommon injury, tar-

sometatarsal luxation can result in profound lameness. Treatment other than surgical arthrodesis is rarely successful. This report elucidated a previously unreported technique for surgical stabilization of the tarsometatarsal joint. As with any procedure to achieve tarsometatarsal arthrodesis, adherence to the other general principles of arthrodesis (removal of articular cartilage and use of bone regeneration material) as well as postoperative external coaptation to protect the internal fixation are essential.—*Arthur A. Fettig, DVM, DACVS*

■ ■ Source

Tarsometatarsal arthrodesis using tarsometatarsal intramedullary pin stabilization. Chow EP, Balfour RJ. *VET SURG* 41:733-737, 2012.