



MISUSE OF THE HERBICIDE CHLORMEQUAT AS EUTHANASIA AGENT IN VETERINARIAN PRACTICE, AN EMERGING PROBLEM?

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OBJECTIVE

We present two cases of lethal secondary intoxication of dogs after ingestion of parts of the body of animals euthanized with chlormequat.

CASE 1:

A dog died after licking the open wound of a horse euthanized with a double intravenous dose of 5 mL Stabilan® 750 (chlormequat chloride 750 g/L) by a veterinarian. The open wound was a jugular incision, made for autopsy purpose.

Shortly after exposure, the dog developed vomiting, black diarrhoea, mydriasis, and tremor. The dog died 20 minutes after the first symptoms.

CASE 2:

A border collie died 1 hour after eating the entrails (liver, kidneys) from the open abdomen (probably for autopsy purpose) of a lamb euthanized by an intravenous injection of 4 mL Cycocel® (chlormequat chloride 750 g/L).

Quickly after ingestion, the dog started to vomit, developed convulsions and difficulties of breathing. The veterinarian reported bronchial hypersecretion, bradycardia, and shock.

Symptomatic treatment was initiated but was unsuccessful.



DISCUSSION

Chlormequat chloride, also called chlor(o)choline chloride is a plant growth regulator marketed in Belgium under 8 different brand names.

Although chlormequat poisoning clinically resembles that seen with anticholinesterase compounds, it is not an acetylcholinesterase inhibitor and atropine seems to worsen the situation.¹

These 2 case reports prompted us to perform a short inquiry among farmers and veterinarians. From the answers we got, the misuse of chlormequat to euthanize animals seems to be a known practice in the agricultural world.

In the literature, we found no report of chlormequat intoxication in animals and scarce reports of chlormequat ingestion, most of them lethal, in humans.^{2,3}



CONCLUSION

We would like to draw attention to the misuse of chlormequat and the risk of life-threatening secondary poisoning. We find it important to collect and share data about this dangerous malpractice to get a clear grasp on the scale of the problem.



REFERENCES

1. Nisse P, Assez N, Kahn JP, et al. Atropine: Antidote or killer in chlormequat poisoning? Clin Toxicol (Phila) 2013; 51:355–6.
2. Winek CL, Wahba WW, Edelstein JM. Sudden death following accidental ingestion of chlormequat. J Anal Toxicol 1990; 14:257–8.
3. Freislederer A, Besserer K, Mallach HJ. Suicide with a supposedly safe plant growth regulator. [Article in German] Beitr Gerichtl Med 1989; 47:107–10



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