



An Education in Euthanasia

As veterinarians, we are often asked about many aspects of animal care and needs. When responding, it is important to rely on science as well as personal experience and not on emotional perceptions that may not be based on scientific or practical reality. One area in which this is certainly true is euthanasia of animals. Veterinarians are no strangers to euthanasia. In our practices, we euthanize animals for a variety of reasons nearly every day. Sadly, however, when it comes to euthanasia in animal shelters, most of us are quite naïve. I hope that this editorial will introduce veterinarians to an area of euthanasia in which most have minimal training and/or personal experience: carbon monoxide euthanasia in the shelter setting.

Animal shelter euthanasia has a long and, in many cases, unpleasant past. Animals have been euthanized by many horrific methods that, fortunately, are no longer allowed or tolerated in modern animal shelters. Still, there are places in the United States where euthanasia is not practiced to the standards that compassionate people would desire. For this reason, it is important that veterinarians become aware of the challenges and differences of animal shelter euthanasia compared with hospital euthanasia. However, I caution readers to be sure that when researching animal shelter euthanasia, they are looking at today's more regulated, more humane euthanasia procedures and not at sources that sell the horrific past as today's problems.

To ensure the most humane euthanasia for a broad variety of animal types, ages, medical conditions, and temperaments as well as a safe environment for animal shelter personnel, we should insist that all acceptable types of euthanasia be performed in accordance with the AVMA guidelines on euthanasia. I also submit that despite what one might perceive or read, euthanasia via lethal injection is not always the most humane method of euthanasia. There are those who advocate that all animal shelters be limited to lethal injection only and that all other types of euthanasia be banned in the shelter setting. Based on my observations of over 20 years' experience working with a local animal control department, I am convinced that embracing this philosophy would not guarantee the most humane method of euthanasia for all shelter animals.

One must recognize that there is a great difference between euthanizing a beloved pet in a quiet room with people the pet knows and trusts and euthanizing animals that are feral or poorly socialized or that have lived with limited handling. There is also a big difference between highly trained doctors euthanizing individual pets and euthanizing large numbers of animals at one time, often with limited personnel who may also have limited training. These differences create many challenges that must be overcome if humane euthanasia is to be accomplished.

Some of these challenges can be addressed through the use of carbon monoxide euthanasia. I recently had the opportunity to witness this procedure and to compare it with lethal injection. The following are a few of my observations:

Sometimes, the less handling, the better and safer. My first experience of observing carbon monoxide euthanasia involved a very large, very aggressive, and dangerous dog. Using a long catchpole, the animal shelter staff placed a noose over the dog's head and walked the dog into the carbon monoxide chamber. The dog did not panic. It walked into the chamber, the carbon monoxide was introduced, and within 30 to 45 seconds, the dog was unconscious. It died a few moments later. My postmortem examination revealed no elimination of urine, feces, or anal sac secretions or any

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form of struggle. The animal truly died with very little added stress.

There is security in the pack. Poorly socialized or just frightened animals will often remain calm if left in small groups. I participated in euthanizing a group of unruly cats by a variety of means. We snared and gave intraperitoneal injections to one group, as they were too wild to safely receive an intravenous injection. Many of these animals took more than 30 minutes to die, probably as a result of the catecholamine release while they were being caught. Others were injected with a sedative just so they could be handled. We took a group of these cats and placed them in a carbon monoxide chamber. As soon as the cats were in the chamber cart, they huddled together. We placed about five cats in a large cart, and, interestingly, once together they settled down and seemed to relax. Just like the dog, they were unconscious within 30 to 45 seconds of receiving the bottled carbon monoxide and died a few minutes later.

My postmortem examination of these cats found them to be in the exact places they were in when wheeled into the chamber. Like the dog, there was no urine spray, bowel or anal sac evacuation, or indication that these animals had tried to escape or had experienced anything less than a peaceful death. With these intractable cats, there was no question that carbon monoxide was the most humane method of euthanasia that day. We saw this same kind of group relaxation when euthanizing dogs in small numbers.

Vocalization is not necessarily synonymous with pain. According to the AVMA guidelines on euthanasia as well as texts on anesthesia, once an animal is unconscious, it feels no pain. This is an important point

because with carbon monoxide as well as lethal injection euthanasia, animals often vocalize even though they are unconscious. For the untrained person, this can be very disturbing.

Lethal injection does not always mean intravenous injection. Unfortunately, because many shelter animals are nervous or poorly socialized and may have badly matted coats or difficult veins, trying to hit a vein in these animals is often much harder than in private practice. The difficulty in being able to predictably hit a vein often makes it necessary to rely on other methods, such as intraperitoneal or intracardiac (after sedation) injection. Because these methods take much longer to induce unconsciousness than either intravenous injection or carbon monoxide, they could be considered more stressful to the animal.

Today, the method of euthanasia in animal shelters across the United States has become quite controversial, and much of the rhetoric has an agenda to severely limit the method of euthanasia to lethal injection. Sadly, most proponents of this agenda perceive each animal sitting quietly while it receives an intravenous injection. This kind of thinking is quite naïve and will ultimately result in many animals dying with greater stress.

I would encourage my colleagues to learn about their local animal shelter's euthanasia and general operating procedures. I would further encourage them to review the AVMA guidelines on euthanasia. Finally, as unpleasant as it might be, I would encourage anyone planning to comment on animal shelter euthanasia to actually witness such euthanasia first. I can assure you that it will not be a nice day, but it will be a real education.