

EUTHANASIA IN SMALL ANIMALS A LITERATURE REVIEW

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Abstract: The humanization of care for domestic animals is a common theme within the reality of pet caregivers, as well as within the daily lives of veterinary medicine professionals. Within this perspective, euthanasia can shorten the suffering of animals in a terminal state or with uncontrollable pain, which cannot be minimized through analgesics, sedatives or any other type of treatment, and also alleviate the suffering of their caregivers, even make it such a difficult decision to make. This conduct must be seen as the last resort to be done, when no treatment has a positive effect, and the veterinarian must be concerned with humane techniques, and thus induce death quickly, painlessly and peacefully for the patient. The present study has as general objective to search in the literature the circumstances of when the euthanasia of small animals is recommended. The methodology is based on the literature review, whose publications will be directed to the scientific area, being made bibliographic searches through sources constituted by electronic resources in the electronic base Scientific Electronic Library On-line (SciELO) and Google Scholar, with published documents between 2010 and 2022. It is concluded that despite being a difficult choice, both for pet caregivers and for professionals involved in veterinary clinics, it is a necessary procedure for animals undergoing irreversible treatments or that are in great suffering, being considered a humanitarian measure.

Keywords: Euthanasia; Domestic animals; Veterinary.

INTRODUCTION

Euthanasia is an established part of veterinary practice. The “good death” (from the Greek “I” and “thanatos”) aims to bring relief to animals and their tutors. However, different veterinarians consider it to be one

of the greatest burdens of the profession, and pet owners feel overwhelmed with the need to make a decision on behalf of vulnerable individuals (CORRÊA; LORENZO; SANCHEZ, 2017).

On the one hand, the phenomenon of moral stress and the alarmingly high suicide rate among veterinarians are often associated with their professional obligation to alleviate the suffering of their patients. This, on the other hand, is not reflected in the concept of euthanasia as a tool that has been available to veterinarians (although human doctors cannot apply euthanasia, since it is illegal in Brazil and in other countries) (FRANK et al. al., 2016).

Euthanasia is one of the most frequently mentioned challenge or dilemma situations in the practice of small animals. It is also considered the most stressful, and occasionally euthanasia is even refused on moral grounds. Although veterinarians are familiar with the legal framework, they sometimes cannot name the relevant criteria or tools they use in decisions, and few are convinced that the development of such tools would be necessary and useful. The discourse on implementing more training on communication skills and ethical judgments in veterinary education must be discussed (CORRÊA; LORENZO; SANCHEZ, 2017).

A fundamental challenge, however, is also presented by the tension of motivation underlying the choice to become a veterinarian; helping animals and improving their lives, on the one hand, and the simple act of taking their lives, leaving aside reasons and justifications, as part of a veterinarian’s job can be difficult to understand. It is therefore important to differentiate between moral stress due to the anticipation of the patient’s death (which makes euthanasia challenging in itself and moral stress for the wrong reasons (which requires precise

criteria for justified euthanasia); a difference that is not always clearly separated. in the literature (CARDOSO, 2010).

It is relevant to distinguish between a veterinarian's patient-centered ethical approach, i.e., animal-centered, or "guidance of care" that is led by empathy for the vulnerable individual and a balanced ethical approach that is based on the consideration of the factors of all the individuals involved, aiming at a fair result. Although the role of the veterinarian as an advocate for animals is still dominant. It is painful to prolong life for a companion animal in a critical condition, but its owner may not take into account the animal's needs, but also, for example, the owner's religious beliefs or ideals of a "good death" (SANTANA, 2021).

The justification for anticipating the death of the animal is a crucial issue in the ethics of animal treatment. Among other contexts, such as slaughter, self-defense, slaughter or death in research and testing, euthanasia can be considered ethically justifiable. However, this judgment depends on different factors: first, there are two fundamentally different definitions of euthanasia; second, these different definitions indicate various underlying accounts of the meaning of death, and third, different accounts of welfare for animals. These distinctions are also related to different criteria for a death to be "good" (FRANK et al., 2016).

When used in human medical ethics, the widely accepted meaning of the term "euthanasia" depends on context, such as a country's legal guidelines and medical practice. It is a confusing and loaded concept that requires semantic clarification before ethical debate. It may be useful to state the same in relation to the discourse of euthanasia in veterinary medicine, as it is used for procedures that differ in ethically relevant aspects (DIAS et al., 2013).

The term euthanasia is problematic in different ways, first, it lacks the normative impact that is heavily intertwined with the report of providing a "good death" to a patient, unless "good" is understood in a "painless" and "following a standard protocol". If the death caused by a veterinarian is, by definition, a good death, possibly because it is painless, the veterinarian does not gain any decision criteria other than the methodically correct execution of the euthanasia process (SAGATA, 2016).

The second problem with the definition is therefore the transfer of responsibility to the veterinarian. If it is his action that turns the slaughter of a companion animal into a good death, he needs to decide based on other unspecified criteria whether and when euthanasia is indicated or not (MACHADO, 2016).

A third aspect if it is not possible to determine the best interest of animals, epistemic problem; or if there is a distinct best interest, but it does not have to be considered or is surpassed by the interest of the tutor in the process of euthanasia and moral difference (MACHADO, 2016).

Dealing with veterinary practice, laws and guidelines that establish rules for euthanasia bring even broader perspectives, that is, from the animal owner and also from the public interest. The guidelines implicitly answer the question to what extent the justification for euthanasia can be based not only on the perceived interests of the animal, but also on human interests, especially those of the animal's owners, as well as public financial or safety interests. al., 2013).

In other cultures, end-of-life decisions in the case of animals are more clearly based on human interests. The general change in social relationships between humans and animals presents a challenge to existing laws and has not yet been sufficiently implemented.

Likewise, the forthcoming calls for justification of morally relevant actions involving animals stand in contrast to the outdated, albeit legally asserted, assumption that it is self-evident that animals are under the command of humans.

In companion animals, the concept of “convenience euthanasia”, that is, the euthanasia of a pet against its supposed interest, but only due to the will of the patient’s guardian, is legally prohibited in Brazil. However, there are cases in which the context questions a clear distinction between cases of euthanasia in the presumed best interest of the animal and those of euthanasia in the interest of the owner (MACHADO, 2016).

This study investigates the interrelationships of philosophical considerations with laws and guidelines, personal moral attitudes, and practical context and constraints as potential causes for the marked ambivalence that accompanies euthanasia in the practice of small animals.

The frequency and diversity of euthanasia cases depend both on a country’s legal framework and the veterinarian’s working environment. What is perceived as stressful or burdensome, however, may also be based on motivational or other psychological properties of the individual veterinarian.

The crucial conflict lies in the discrepancy between the reasons for choosing the profession, being the defense of animals, helping animals, etc. The necessary choices and actions of a veterinarian’s daily routine, such as having to decide in the interest of the tutor instead of the patient, “euthanizing” animals for a professional can be exhausting.

There are, however, other potentially influential factors that contribute to the field of tension over end-of-life decisions in small animal care practice. Although euthanasia is a common process in everyday veterinary practice, research suggests that these professionals do not feel well

prepared for the task during their theoretical training. Therefore, what could facilitate the confrontation of euthanasia, since the trained veterinarians feel more distant from the animals.

Therefore, when and how a veterinarian must perform the euthanasia of small animals is the question to be evaluated in depth.

GOALS

GENERAL PURPOSE

Search the literature for circumstances where euthanasia of small animals is recommended.

SPECIFIC OBJECTIVES

- Conceptualize Euthanasia
- Describe the euthanasia procedure and the time of treatment when it must be suggested.
- Analyze the humanization in the care of the animal in critical condition.

METHODOLOGY

This was a descriptive study, based on the literature review, whose publications were directed to the scientific area through sources constituted by the electronic resources in the base of the Scientific Electronic Library On-line (SciELO) and Google Scholar, with documents published between 2010 and 2022. Having descriptors related to the themes: Euthanasia; Domestic animals; Veterinary. Data collection took place from February to December 2022. Once identified, they were analyzed and those that met the objectives of the study, were in Portuguese or English, references were included, but those that did not meet the these criteria will be excluded.

RESULTS AND DISCUSSION

Regarding the results, it must be reported that in the literature in general, it is

highlighted that euthanasia must be adopted when the measures for adequate preservation of the animal's life are extinguished, opting for this procedure refers to a maneuver that humanized care, since this animal has no more possibility of improvement, and is suffering too much. According to Souza et al. (2019) apud Santana (2021 p. 36) said that such circumstances can be classified according to Table 1.

For Corrêa, Lorenzo and Sanchez (2017) diseases that are not caused by experimental manipulation can occur in animals as a result of their genotype, or they can be spontaneous. Regarding the genotype, the disease can be expected in animals whose genome has been altered in order to create an animal model of a disease, although sometimes genomic alterations result in unexpected phenotypes that can be deleterious to the animal's health.

Similar to humans and pets, laboratory animals can develop spontaneous diseases such as tumors, diabetes, kidney disease and others. This is especially true in elderly animals. They may also experience diseases

associated with trauma, for example, associated with fights (ALMEIDA, 2014).

Any animal with illness must be reported to the veterinary team. Animals with severe disease due to spontaneous conditions or phenotype must be evaluated in the same way as those with disease due to experimental handling; that is, disease that is of clinical severity associated with a poor outcome must be sacrificed. In this regard, it is essential to invoke the opinion of the veterinarian (SAGATA, 2016).

Acceptable euthanasia methods reliably result in the human death of the animal, methods that are acceptable with conditions are those that require some additional conditions to be met for human death to reliably result, and unacceptable methods are those that are considered inhumane (SANTANA, 2021).

With respect to research animals, the selection of a euthanasia method must guarantee human death as well as meet the experimental needs of the study. The method chosen must also consider the impact on personnel, both in terms of

DISEASES	PHYSIOLOGICAL CHANGES	TREATMENT	EUTHANASIA
Neoplasms	Metastases in various organs and local clinical signs	Surgical, chemotherapy, palliative care	In severe cases, palliative care no longer minimizes pain and other clinical signs.
Peritonitis	Sepsis	Administration of antibiotics and other medications.	When the treatment is not enough and the animal suffers.
Distemper	Seizures, partial or total paralysis, blindness, tremors.	Support therapy	When there are neurological complications that irreversibly affect the animal's well-being.
Chronic kidney disease	Signs of uremia.	Supportive treatment, hemodialysis, transplantation	When supportive or surgical treatment is ineffective.
Equine infectious anemia	Intermittent fever, petechiae, edema, icteric	There is not	Obligatory
Run over	Trauma, fractures, lacerations	Symptomatic, surgical treatment	Clinical signs of incompatibility with life

Table 1. Circumstances in which euthanasia is recommended.

Source: Souza et al. (2019) apud Santana (2021 p. 36).

safety and emotional burden, as individuals may perceive and respond differently when performing or witnessing euthanasia. In addition, it is good practice to sacrifice animals outside the sensory range of other animals in order to minimize the suffering of those close by (TOGNI et al., 2018). The euthanasia methods used can be categorized in relation to the use of pharmacological or chemical agents versus physical methods. The methods described here are not an exhaustive list of all possible methods, but represent methods that are commonly used for the euthanasia of livestock animals. (SANTANA, 2021).

Euthanasia methods that employ drugs or chemicals generally involve exposing the animal to the agent by inhalation or other routes of administration, such as intravenous or, in the case of aquatic species, immersion. When such agents are used, it is advisable to use pharmaceutical grade compounds to ensure a smooth and quick death of the animal.

Inhaled agents are generally easy to use and can be used to euthanize large numbers of animals at one time. This approach is very commonly used for rodent euthanasia. The most common agents used carbon dioxide (CO₂) and halogenated fluorocarbon anesthetics such as isoflurane (SAGATA, 2016).

The class of halogenated fluorocarbons includes several agents that are commonly used as anesthetics for surgery, including isoflurane, sevoflurane, halothane, and enflurane. Of these, isoflurane is the most commonly used. When administered in overdose, these agents can be used for the euthanasia of animals (ALMEIDA, 2014).

Note that ether is sometimes used for anesthesia and euthanasia; however, its use is discouraged due to the risks associated with its high flammability and explosive potential

(including carcasses of animals euthanized by ether), as well as respiratory tract irritation following inadvertent inhalation by personnel. Inhalation anesthetics are sometimes administered to rodents by placing a cotton ball soaked in anesthetic in a dome that includes a platform on which the animals can stand to avoid direct contact with the anesthetic.

This method does not allow control of the anesthetic concentration, the accumulation of high anesthetic concentrations can be harmful to the animals and there is a risk of exposing personnel to residual gases. The preferred method for administering inhalant anesthetics is via a precision vaporizer, a tool that delivers specified concentrations of anesthetic, along with oxygen, or other carrier gas, to the animal or the chamber in which the animal is placed. (2018).

The chamber must be filled gradually. There are commercial systems that feed a certain concentration of anesthetic into a chamber at a constant rate. Any system that uses halogenated fluorocarbons for euthanasia must be equipped with a means of eliminating waste gases from personnel. Another option is to initially anesthetize the animal with isoflurane and then use CO₂ for euthanasia (TOGNI et al., 2018).

A variety of physical methods can be employed for the rapid euthanasia of animals, particularly small rodents. When a secondary method of ensuring death is appropriate, a physical technique is more commonly employed. Some of the more common physical methods are described here. While this is true of any method of euthanasia, it is particularly important that those who use physical methods are well trained and qualified (SANTANA, 2021).

For the training of individuals in the proper use of these methods, we suggest the use of animals that have already been

euthanized by other means or that are deeply anesthetized. While common physical methods for euthanizing rodents and small birds are covered here, it can be seen that physical methods such as captive dart and electrocution are sometimes used for the euthanasia of livestock, particularly in meat production circumstances. (VIANA, 2019).

Many animal caretakers and other animal facility employees have chosen these jobs because of their affinity for animals and a desire to provide for their care and welfare. Often, bonds form between animals and those who care for them. Being involved in the euthanasia of animals, especially those with whom they have worked closely, can be difficult for staff (SAGATA, 2016).

The kill-care paradox describes situations in which individuals must sacrifice the animals they have cared for. Likewise, Rollin uses the term moral stress to describe the stress experienced by individuals who must euthanize animals for reasons that do not directly benefit the animal; stems from a conflict between an individual's reasons for working in an animal-related job and having to sacrifice the animals in their care (ALMEIDA, 2014).

According to Souza et al. (2019) as some level of psychological impact is expected among those working in animal facilities, it is important that they recognize the potential stress that employees may experience due to forming bonds with animals. They also need to recognize the impact that the practice of euthanasia can have on employees and provide resources for those who need additional support.

FINAL CONSIDERATIONS

Euthanasia is a procedure whose objective is to shorten the suffering of the animal, where its choice must take into account the clinical condition of the patient. The veterinarian

needs to have in-depth and specialized knowledge to perform such a maneuver, which must occur in a humanized way, both for pet caregivers, as well as for patients.

The referred procedure must initially evaluate the survival and prognosis of the animal through the analysis of its well-being, thus measuring its level of well-being, later the conduct must be suggested to the animal's caregiver so that the procedure is released, remembering that It is important to understand that the absence of freedom can be very harmful to the welfare of animals.

Concluding, therefore, that despite being a difficult choice, both for pet caregivers and for professionals involved in veterinary clinics, it is a necessary procedure for animals in cases with incurable diseases and that are in great suffering, being considered a measure humanized.

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