

CASUISTRY OF DISEASES IN DOGS AND CATS ATTENDED AT THE VETERINARY HOSPITAL IN THE COUNTRYSIDE OF SÃO PAULO, BRAZIL

CASUÍSTICA DE ENFERMIDADES EM CÃES E GATOS ATENDIDOS NO HOSPITAL VETERINÁRIO DO INTERIOR DE SÃO PAULO, BRASIL

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ABSTRACT: This study aimed to analyze the main illnesses that affected canines and felines attended during the period from 2017 to 2018 at the Veterinary Hospital of Anhanguera University Center in the city of Leme, São Paulo, Brazil. Through the collection of data from clinical cases obtained from archived medical records, the most common disorders affecting these species were identified and studied, providing relevant information about these alterations. It was observed that out of a total of 530 appointments, 84.3% were for canines and only 15.7% for felines, supporting existing data indicating a higher population of dogs compared to cats in Brazil. The reasons for which the guardians sought specialized care for both species in this study were consultations for a general clinical evaluation (*check-up*) of the patient, castration procedures, and assistance due to domestic accidents, including foreign body ingestion in dogs and falls/runaways in cats. It was possible to conclude that this study was essential for understanding the dynamics of the occurrence of certain clinical alterations and for contributing to the improvement of animal healthcare in both of the species under consideration.

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Keywords: Conditions in small animals. Service routine. Hospital practice in small animals.

RESUMO: Este estudo teve como objetivo realizar uma análise das principais enfermidades que acometeram os caninos e felinos atendidos durante o período de 2017 a 2018 no Hospital Veterinário do Centro Universitário Anhanguera da cidade de Leme, São Paulo, Brasil. Por meio de uma coleta de dados de casos clínicos provenientes das fichas de prontuários arquivados foram identificadas e estudadas as afecções mais comuns que afetaram essas espécies, além de fornecer informações relevantes sobre essas alterações. Observou-se que de um total de 530 atendimentos sendo que 84,3% eram caninos e apenas 15,7% de felinos, corroborando com dados já existentes de que há uma maior população de cães quando comparados aos gatos no Brasil. O motivo pelo qual os tutores procuraram um atendimento especializado envolvendo as duas espécies neste estudo foram as consultas para uma avaliação clínica geral (*check-up*) do paciente, procedimentos de castração e auxílio em consequência a acidentes domésticos, sendo a ingestão de corpo estranho em cães e quedas/fugas em gatos. Foi possível concluir que este estudo foi fundamental para compreender a dinâmica de ocorrência de determinadas alterações clínicas e contribuir para a melhoria dos cuidados de saúde animal em ambas as espécies abordadas.

Palavras-chave: Afecções em pequenos animais. Rotina de atendimento. Prática Hospitalar em pequenos animais.

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INTRODUCTION

Animals have great importance in our lives, with the American Veterinary Medical Association defining the human-animal bond as “a mutually beneficial and dynamic relationship between people and animals that is influenced by behaviors essential for the health and well-being of both” (Miranda, 2011). When comparing the bond between dog and cat guardians, dog guardians exhibit a stronger bond (Johnson et al. 1992, Winefield et al. 2008).

Currently, it is estimated that over 50% of households worldwide have a pet (Bonas et al., 2000), and according to the latest data released by the Brazilian Institute of Geography and Statistics (IBGE) in 2019, the populations of dogs and cats in Brazil were estimated at 54 million and 24 million, respectively, with projections suggesting that the dog population will reach 70 million and the cat population 41 million by 2030 (Gov, 2023).

The clinical examination is one of the main tools in medical practice, consisting essentially of anamnesis and physical examination. Anamnesis is one of the crucial stages for obtaining a diagnosis and involves the collection of information about past and current medical facts of interest about the patient, which should be present in the animal's clinical record (Feitosa, 2014). The construction of an ideal clinical care record depends on several factors, such as: the development of a comprehensive anamnesis and its proper completion; the performance of an accurate, thorough, and detailed physical examination; sufficient knowledge and mastery of the complementary tests available in the market, and refraining from treating the patient before establishing the diagnosis. These records constitute sources of information inherent to the follow-up of the animal, becoming a link to the success of the treatment, as the veterinarian who conducts the first examination is not always the one who concludes the case (Feitosa, 2014). According to Ferreira (2019), the medical record of the veterinary patient is a great source of knowledge. Therefore, if these criteria are not followed, there are high chances of error in establishing the diagnosis (Feitosa, 2014).

The service record is a document intended to demonstrate the sequential execution of all veterinary medical decision-making, and such documentation reinforces the trust between the pet owner and the professional, serving transparency in relationships (Ferreira, 2019). Furthermore, the service record can be used as evidence in legal situations where the veterinarian may be involved (Lowinski et al., 2016), emphasizing the importance of adopting measures that ensure the proper recording of information in this dossier for probative, scientific, legal, and public health reasons (Santos, 2021).

The case studies of diseases in dogs and cats treated at the Veterinary Hospital play a crucial role in understanding and confronting the health challenges faced by these animals. It not only provides a comprehensive view of the prevalence and distribution of specific diseases in the evaluated geographical region but also serves as a valuable guide for the formulation of targeted prevention and treatment strategies. By analyzing this data, animal health professionals can identify emerging trends, determine the effectiveness of existing interventions, and guide future scientific investigations. Additionally, this information is crucial for informing the creation of public awareness programs and education about the importance of preventive health and proper care for pets, thus contributing to promoting animal welfare and public health more broadly. In light of this, the aim of this study was to evaluate the service records of clinical and surgical cases observed in dogs and cats from 2017 to 2018 at the Veterinary Hospital of the Anhanguera University Center in Leme, São Paulo, Brazil, and to assess the casuistry of the most frequently encountered diseases in these species.

MATERIALS AND METHODS

For the development of this study, the method of data collection from the veterinary service records of small animals obtained from the clinical consultations conducted at the Hospital of the Anhanguera University Center (UNIFIAN) in Leme, São Paulo, Brazil, was used. The Veterinary Hospital of UNIFIAN in the city of Leme offers veterinary clinical care, consultations, surgeries, diagnostic tests, hospitalizations, and specialized services in various areas. Accordingly, the consultations were conducted from 2017 to 2018, considering the occurrence and frequency of pathologies in these groups of animals.

For a better analysis, each medical record was considered a clinical consultation. Subsequently, the data were grouped in Microsoft Excel© spreadsheets according to the main complaint and statistically analyzed in relation to age, sex, species, and reproductive status, being classified into some specialty. Records were excluded when there was insufficient information or due to illegibility. Finally, the results were interpreted and discussed considering the existing literature and the limitations of the study.

RESULTS AND DISCUSSION

It was observed that out of a total of 530 appointments, 84.3% were for canines, and only 15.7% were for felines, given that the canine population is larger worldwide (Dias et al., 2004). Regarding the diseases found, the category "Others" received more attention in both canines and

felines. Next, the most commonly observed categories were addressed, considering each of the studied species.

Canine Species

In this "Other" category, elective surgeries for castration (orchietomy and ovariosalpingohysterectomy), check-up consultations for routine clinical evaluations, dental and auditory system conditions, domestic accidents such as foreign body ingestion, fights, and run-over incidents due to escape were included.

Figure 1. Case studies of canine care between the years 2017 to 2018 considering sexual preference.

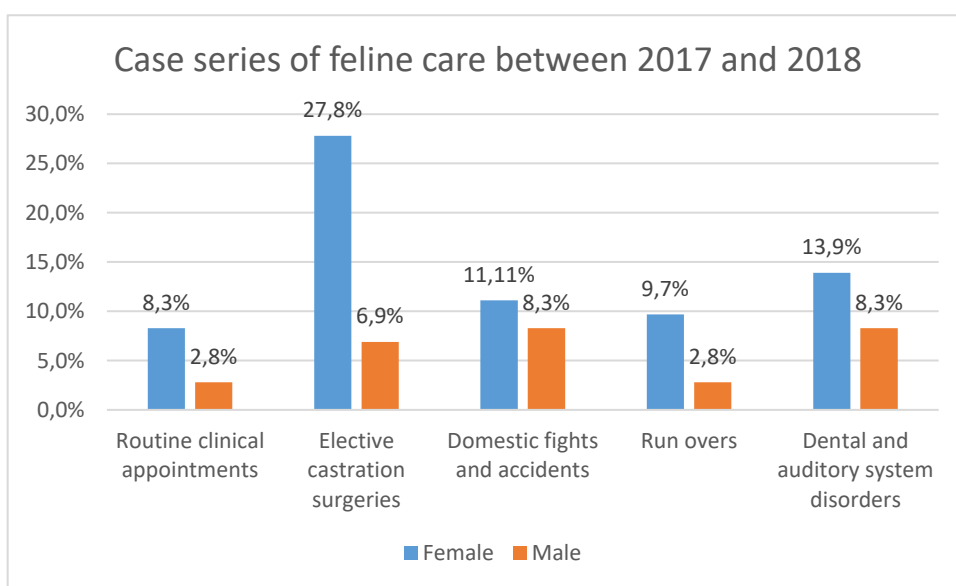
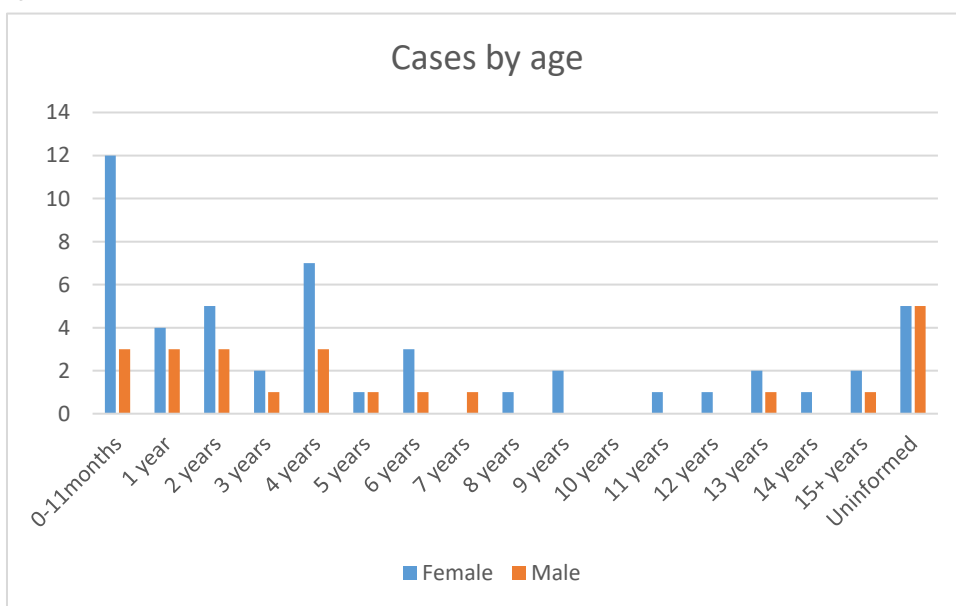


Figure 2. Age of dogs attended at the Veterinary Hospital of UNIFIAN, from January 2017 to 2018.



The frequent ingestion of foreign bodies, such as stones and plastic toys, is a common behavior in dogs. However, puppies are more susceptible due to their natural curiosity, contributing to the occurrence observed in this case, as indicated in Figure 2, where 10.2% of the recorded dogs were in the age range between 0 and 11 months (Nelson; Couto, 2015).

According to Ribeiro (2016), studies have revealed that animals up to eight months of age demonstrate significantly higher susceptibility to helminth infestations. This vulnerability can be attributed to their limited capacity to develop passive immunity and the lack of an effective active immune system at this stage of development. Furthermore, it is important to note that this immunological fragility may contribute to explaining the behavior of compulsive appetite observed in some puppies, who may seek to meet their nutritional deficiencies through indiscriminate ingestion of non-food substances.

Canine helminthiasis refers to infections caused by intestinal parasites such as worms and protozoa, which can affect the health and well-being of pets; common symptoms include diarrhea, vomiting, weight loss, weakness, and, in more severe cases, anemia (Lopes et al., 2021). Additionally, some types of worms can be transmitted from dogs to humans, posing a risk to public health. Preventing helminthiasis in dogs involves measures such as maintaining a clean and hygienic environment for the animal, regular deworming as indicated by the veterinarian, ensuring a balanced diet, and avoiding contact with the feces of other animals. Effective treatment typically includes antiparasitic medications prescribed by the veterinarian, along with the adoption of proper hygiene practices (Figuera et al., 2008).

The practice of elective spaying in female dogs offers a series of benefits, including the interruption of reproduction, prevention of unwanted estrus, and stabilization of systemic diseases. This procedure also serves to prevent a variety of reproductive diseases and undesirable behavioral changes. Recent studies indicate that when spaying is performed before the first estrus, the risk of developing mammary neoplasms is as low as 0.5%. However, this risk increases to 8% after the first heat and to 26% after the second, as evidenced by Martini (2020). Despite the proven benefits, a significant portion of the population remains reluctant to subject their animals to this procedure, often due to the belief that spaying is contrary to nature and animal well-being. However, it is important to note that due to the discomfort associated with the estrous cycle, females are the main subjects of this surgical procedure, as pointed out by Soto et al. (2007). These data corroborate the results obtained, revealing that approximately 80% of the sterilized animals were females, and 20.8% of them were in the age range of 0 to 11 months,

as indicated in Figures 1 and 2. These numbers emphasize the continued importance of raising awareness about the benefits of spaying for the health and overall well-being of pets.

Feline Species

Within the "Other" category, elective surgeries for spaying (orchiectomy and ovariosalpingohysterectomy), check-up consultations for routine clinical evaluations, domestic accidents, run-over incidents, and fights due to escapes and wanderings were included. The main clinical signs observed in this category were the presence of polytrauma, generalized injuries, edema, wounds, limb necrosis, and secretions.

Figure 3. Case studies of canine care between the years 2017 to 2018 considering sexual preference.

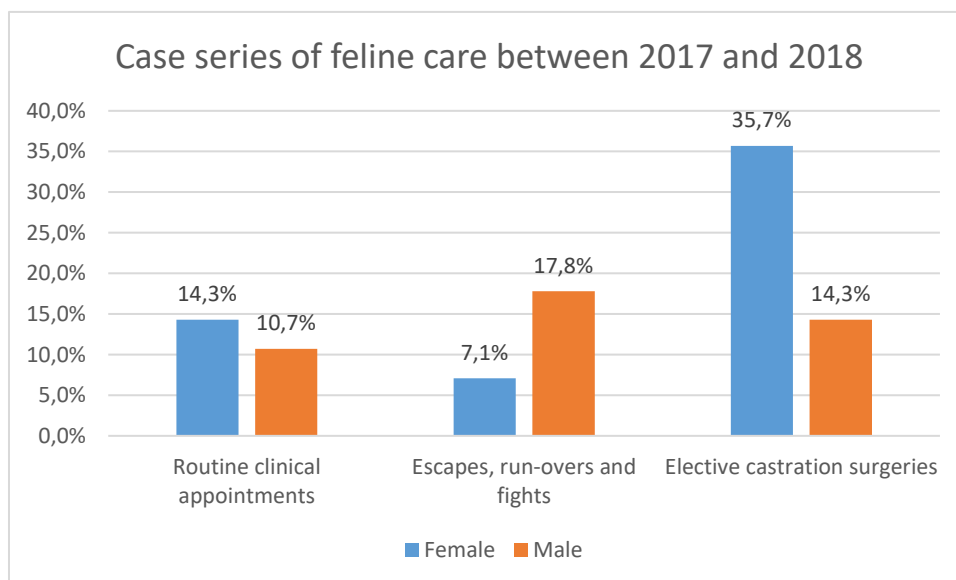
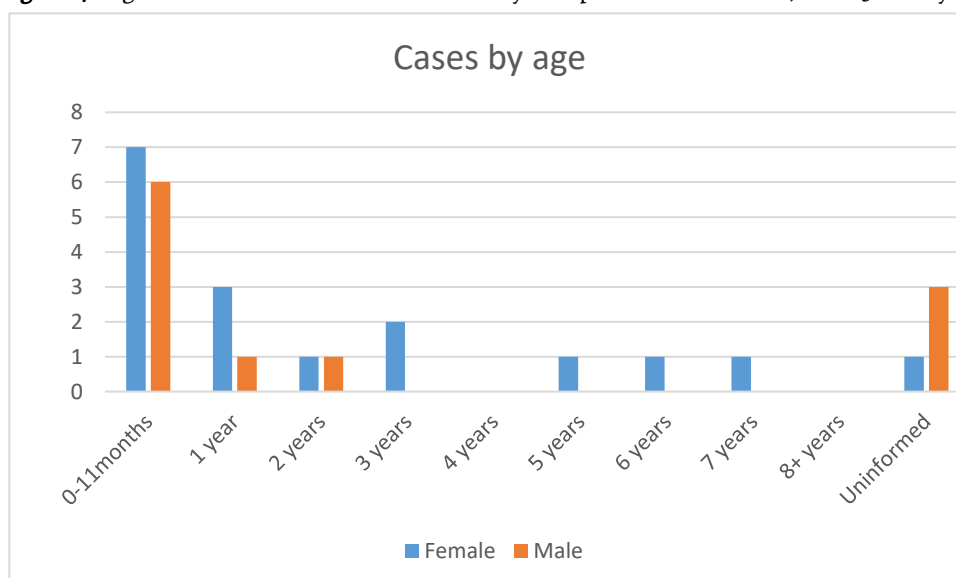


Figure 4. Age of cats attended at the Veterinary Hospital of UNIFIAN, from January 2017 to 2018.



Young animals are more prone to having a peculiar curiosity and are also more predisposed to intentional criminal intoxications (Jericó et al., 2017). Cats belonging to the age group of kittens and young animals were twice as affected by physical disorders, such as domestic accidents, and had three times the chance of developing polytrauma when compared to animals of other ages, due to the animals' sexual maturity phase, which leads to access to the street and predisposes them to accidental or intentional traumas (Lima et al., 2018). Due to their arboreal habits, cats have a greater ability to climb and reach high places, making them more susceptible to domestic accidents (Melo, 2021).

In Brazil, the search for ways to correct undesirable behaviors, such as aimless wandering, fights, and escapes, and especially in the case of females, the problematic issue of unwanted litters, encourages guardians to opt for spaying procedures up to the sixth month of life (Lopes et al., 2004). This trend may justify the incidence of the observed casuistics, as 48.27% of the cats were between 0 and 11 months old, with 71.4% of them being females (Figure 3).

Uncastrated domestic cats exhibited behaviors such as aggression, fights, territory marking, and approximately 1.4% of these animals showed the habit of wandering or escaping, making it extremely important to control this type of behavior, ensuring benefits for both the population and the animal, as they can be potential transmitters of contagious diseases, including dermatophytosis, histoplasmosis, sporotrichosis, cryptococcosis, rabies, feline panleukopenia, feline infectious peritonitis (FIP), and calicivirus. These behaviors are influenced by testosterone, and castration significantly reduces the occurrence of such disorders (Nogueira, 2018). According to the results of Vianna (2013), pediatric castration reduces the animal's tendency to escape, and the earlier it is performed, the greater the chance that this habit will cease completely. Similarly, the procedure is quite effective in controlling aggression, reducing this type of behavior by about 80 to 90% (Nogueira, 2018).

According to Silva et al. (2008), sterilization surgeries, such as orchietomies and ovariohysterectomies, are the most sought-after procedures in felines due to society's awareness of the importance of population control. The high demand for check-up consultations and spaying/neutering procedures in both species can be justified by the fact that it is a teaching hospital, where discounts and facilitated payment methods were offered, as typically, populations with lower education levels and lower purchasing power exhibit stronger bonds and care for their animals (Johnson et al., 1992; Bagley; Gonsman, 2005).

FINAL CONSIDERATIONS

This study has contributed to scientific research and has been essential in understanding the dynamics of occurrence of certain diseases in the region, allowing us to observe if there was a greater susceptibility in terms of age group and sex of dogs and cats in the development of these conditions. These data can also assist in the future development of more specific awareness measures for guardians, aiming at prevention, as we have obtained sufficient information regarding the clinical complaints that were most frequently identified, contributing to the improvement of overall animal healthcare.

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REFERENCES

MIRANDA, M. I. L. A. R. A importância do vínculo para os donos de cães e gatos nas famílias portuguesas. **Relatório Final de Estágio (Mestrado) – Instituto de ciências biomédicas Abel Salazar, Universidade do Porto**, p. 1, 2011.

JOHNSON, T. P., GARRITY, T. F., STALLONES, L. Psychometric evaluation of the Lexington Attachment to Pets Scale (LAPS). **American Psychological Association**, p. 160-175, 1992. 1709

BONAS S., MCNICHOLAS J., COLLIS G. M. Pets in the network of family relationships: an empirical study. **American Psychological Association**, p. 209-236, 2000.

IBGE. INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA. Disponível em: <https://www.ibge.gov.br/>. Acesso em: 10 outubro. 2023.

BRASIL. Proposta de meio ambiente mais votada no PPA Participativo é debatida em Seminário sobre Manejo Populacional ético de cães e gatos. Disponível em: <https://www.gov.br/secretariageral/pt-br/ppa-participativo/noticias/proposta-de-meio-ambiente-mais-votada-no-ppa-participativo-e-debatida-em-seminario-sobre-manejo-populacional-etico-de-caes-e-gatos>. Acesso em: 10 outubro. 2023.

FEITOSA, F. L. **Semiologia veterinária: A arte do diagnóstico**. 3. ed, p. 23-24, 2014.

FERREIRA, K. S. Relevância do prontuário Médico-Veterinário: as características indispensáveis do prontuário Médico-Veterinário. **Jusbrasil**, 2019.

LOWINSKI, K.; TREMORI, T. M.; MASSAD, M. R. R.; TASAKA, A. C.; ROCHA, N. S. Responsabilidade ética e civil do médico-veterinário no ambiente hospitalar. **Revista de Educação Continuada em Medicina Veterinária e Zootecnia do CRMV-SP**, v. 14, p. 33, 2016.

SANTOS, D. C. A gestão documental em Medicina Veterinária: o pioneirismo do Hospital Veterinário Dr. Vicente Borelli. **Dissertação (Mestrado profissional em Gestão da Informação e do Conhecimento) – Universidade Federal de Sergipe, São Cristóvão**, p. 34-35, 2021.

DIAS, R. A.; GARCIA, R. C.; SILVA, D. F.; AMAKU, M.; NETO, J. S. F.; FERREIRA, F. Estimativa das populações canina e felina domiciliadas em zona urbana do estado de São Paulo. **Revista de Saúde Pública**, v. 4, n. 38, p.565 - 570, 2004.

MELO, M. L. S., Revisão de literatura: comportamento felino e diminuição do estresse associado ao manejo cat friendly. **Trabalho de conclusão de curso – Universidade Federal da Paraíba**, p. 13, 2021.

LIMA, P. A., BARBIERI, J. M., ECCO R., GUEDES, R. M. C., OCARINO N. M., PIEREZAN, F., SANTOS, R. L. Estudo retrospectivo da casuística de felinos domésticos no Hospital Veterinário da Universidade Federal de Minas Gerais, no período de 2005 a 2014. **Arq. Bras. Med. Vet. Zootec**, v.70, n.6, p. 1779, 2018.

NOGUEIRA, V. M. Efeitos da orquiectomia sobre o comportamento e o surgimento de afecções urinárias em felinos domésticos. **Trabalho de conclusão de curso – Universidade Federal da Paraíba**, p. 19-20, 2018.

VIANNA, R. C. M. et al. Análise de diâmetro de pescoço e de abdome e comportamento de fuga de gatos domésticos submetidos à gonadectomia pediátrica. **Revista de Educação Continuada em Medicina Veterinária e Zootecnia do CRMV-SP**, v. 11, n. 3 .2013.

SILVA, C. C., SCOPEL, D., NUNES, F. C., FORTES, T. P., SILVA, F. S. Casuística Cirúrgica em Felinos no Hospital de Clínicas Veterinárias. Pelotas (HCV-UFPEL) no período de janeiro de 2004 até dezembro de 2007. **XVII CIC / X ENPOS – Universidade Federal de Pelotas**, 2008.

BAGLEY DK, GONSMAN VL. Pet attachment and personality type. **Anthrozoös**, 18(1), p. 28-42, 2005.

NELSON, R. W.; COUTO, C. G. Medicina Interna de Pequenos Animais. 5. Ed., 2015.

JERICÓ, M. M.; ANDRADE NETO, J. P.; KOGIKA, Tratado de medicina interna de cães e gatos, p. 613-625, 2017.

LOPES, T. V. et al. Análise de perfil hematológico e exame coproparasitológico de cães em relação ao indicativo da presença de verminoses em um canil em Porto Velho–RO. **Research, Society and Development**, v. 10, n. 10, p. e78101018016-e78101018016, 2021.

FIGHERA, R. A. et al. Causas de morte e razões para eutanásia de cães da Mesorregião do Centro Ocidental Rio-Grandense (1965-2004). **Pesquisa Veterinária Brasileira**, v. 28, p. 223-230, 2008.

LOPES, M. D. et al. Controle populacional de cães e gatos na cidade de Botucatu. **Rev. Ciênc. Extens.**, v.1, supl., p.9, 2004.

Soto, F.R.M. et. al. Experiência da implantação do programa de castração cirúrgica de cães e gatos no município de Ibiúna, SP - Brasil. **Veto e Zootec**. v.14, n.2, dez., p. 302 ,2007.

MARTINI, D. T. Relatório de estágio curricular obrigatório: área de clínica médica e cirúrgica de pequenos animais, p.34, 2020.