A STUDY ON AWARENESS OF PERIODONTAL CARE IN CATS AMONG PET OWNERS AT THE KUALA LUMPUR VETERINARY HOSPITAL

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ABSTRACT. Periodontal disease is one of the common oral conditions in cats. Responsible cat owners should present their cats for periodontal check-up periodically and practice good oral care for their cats, including hygiene and feeding. Therefore, this study is to evaluate the level of awareness of periodontal care amongst feline pet owners visiting the Kuala Lumpur Veterinary Hospital (KLVH). The study involved 51 cat owners that presented their cats to KLVH for treatment randomly. Questionnaires were given to the respondents to evaluate their awareness on periodontal disease and oral hygiene practices for their cats. Results revealed that only six respondents (11.76%) had at least a minimal knowledge on feline periodontal disease whilst 45 respondents (88.23%) did not know anything about periodontal disease. The 45 respondents (88.23%) had never practiced any oral care on their cats, while six respondents (11.76%) had some oral care regime such as oral rinse (3.92%), rubbing teeth with cloth (5.88%) and brushing (1.96%). Nine respondents (17.65%) brought their cat for treatments or check-up because of periodontal lesions while 42 respondents (82.35%) presented their cats for other reasons. This study found a notable lack of awareness on periodontal care among cat owners that came to KLVH. This study recommends that (1) client education should be in place to make pet owners aware of their responsibilities in owning companion animals, (2) extensive study be carried out to assess the awareness level in the country, and (3) protocols be set in place in veterinary clinics to educate clients and prevent undue suffering to cats as a result of periodontal diseases. Thus, animal welfare awareness can be highlighted as in line with current veterinary services.

Keywords: Periodontal disease, oral hygiene, cat owner's awareness, Kuala Lumpur Veterinary Hospital.

INTRODUCTION

Periodontal disease is a frequently acquired oral condition in cats. Multiple factors, particularly, the oral hygiene and diet may influence the development of periodontal disease in cats. Awareness on periodontal disease is vital in the first place. Thus, the awareness on the periodontal care amongst the owner is very significant to ensure their cat undergoes regular check-ups, as prevention is better than cure.

According to Santosh *et al*. (2016), by the age of 3 years old, up to 80% of dogs are affected with periodontal disease. Similar situation can occur in cats too as it is mainly caused by the negligence of

the pet owners. In many cases, there is a gross misjudgement of the effects of periodontal disease by pet owners, as it can lead to severe life threatening conditions if untreated (Sculley *et al*., 2002). Periodontal disease is described in two phases: gingivitis and periodontitis. The early stage is gingivitis which is the reversible stage of the disease process; inflammation of the gingiva (Wiggs, *et. al*., 1997 and Merin, 2006). A full dental prophylaxis and constant home care may converse this inflammation which is created by plaque bacteria (Grove, 1982). A responsible cat owner should initially have an awareness of feline periodontal care and eventually develop the knowledge on periodontal care of their cats.

Based on the records of KLVH clients, most of them lack awareness and general knowledge on periodontal care in cats. Therefore, the objective of this study is to determine the level of awareness on periodontal care amongst KLVH clients.

MATERIALS AND METHOD

This study was done by a survey through questionnaires. Fifty-one (51) cat owners who came to KLVH were selected randomly to participate in the survey between May and June 2016. The questionnaires consisted of the knowledge level on periodontal care, the periodontal care regime practices, feeds and feedings.

These questions are mainly directed at evaluation of the awareness on periodontal cares amongst respondents. All questionnaire forms given to client to fill up and were collected on the same day of survey. After the completion of the study, data was analysed descriptively.

RESULTS AND DISCUSSION

Out of 51 respondents who involved in the survey, only six respondents (11.76%) have at least a minimal knowledge on feline periodontal disease, whilst 45 respondents (88.23%) did not know anything about periodontal disease as shown in the Figure 1.

Amongst those six respondents with knowledge on periodontal disease, only four respondents (7.84%) had heard of oral ulcers and two respondents (3.92%) had heard of gingivitis as shown in the Figure 2.

There were 45 respondents (88.23%) who had never practiced any oral care on their cats while six respondents (11.76%) who had some oral care regime such as oral rinse (3.92%), rubbing teeth with cloth (5.88%) and brushing (1.96%). The results are shown in the Figure 3.

Amongst all 51 respondents, nine respondents (17.65%) used to bring their cat to KLVH for treatments or check-up for periodontal lesions while 42 respondents (82.35%) never brought their cats to KLVH for periodontal check-up but for other reasons (Figure 4).

There were 33 respondents (64.7%) from all 51 respondents, who provided food *ad-libitum* to their cats, while 18 respondents (35.29%) provided food two to three times daily. The result of this feeding pattern is shown in the Figure 5.

Twenty-four respondents (47%) offered their cats with kibbles, 18 respondents (35.29%) offered their cats with a mixture of wet and dry food, whilst another 9 respondents (17.64%) offered only wet food to their cats (Figure 6).

Most of the respondents were unaware that cats could have periodontal diseases, as

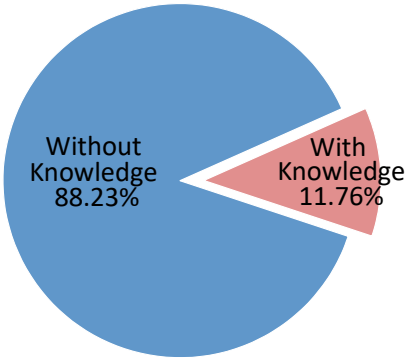

Figure 1. Percentage of respondents on awarenss of periodontal disease in cats.

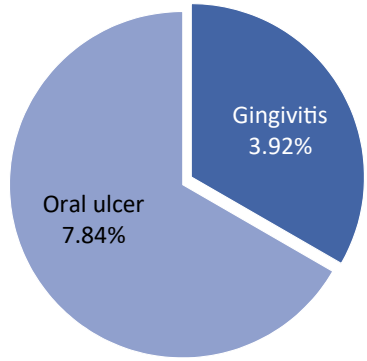

Figure 2. Percentage of respondents who knew about oral ulcers and gingivitis.

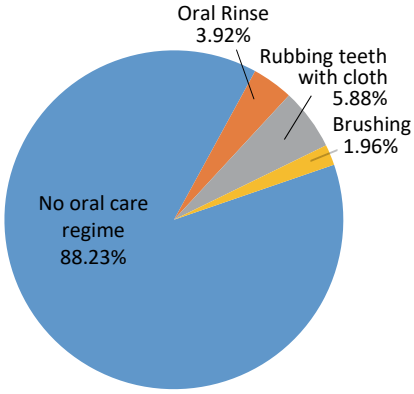

Figure 3. Percentage of respondents practising an oral care regime.

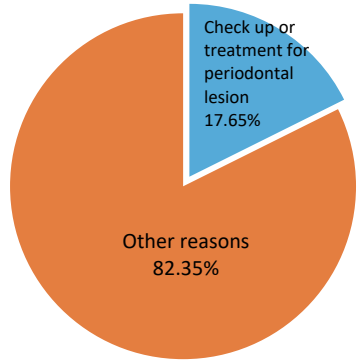

Figure 4. Percentage of clients who brought their pet cat for periodontal treatment.

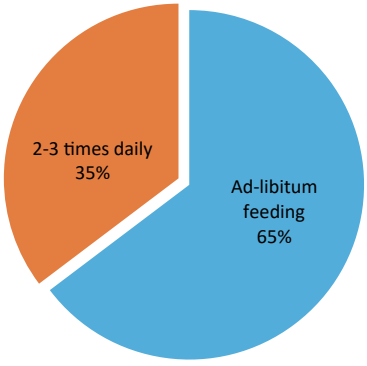

Figure 5. Percentage of respondents on different feeding regimes.

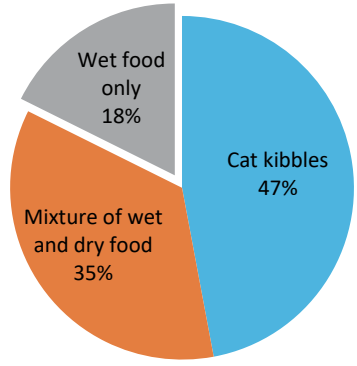

Figure 6. Percentage of respondents on type of food offered.

would humans, if oral care is not practised. This indicates the lack of knowledge on periodontal disease amongst cat owners who visited KLVH. As oral care constitutes animal welfare awareness, it was noted that owners did not have this general knowledge.

According to Berryhill (2005), most pet owners do not understand how dental diseases progress and how they can play a positive role in the care of their pet. This could be one of the reasons for the low awareness of periodontal care in cats in this study.

Similar findings were made by Gawor *et al*., (2006) and Ranjan *et al*., (2010) who found a lack of awareness among the pet owners. Thus, there is an urgent need to educate and share knowledge among pet owners particularly on dental hygiene, for the well-being and welfare of their pet.

According to Niemiec (2008), periodontal disease is described in two stages: gingivitis and periodontitis. Gingivitis is the initial reversible stage of the disease process in which the inflammation is created by plaque bacteria confined to the gingiva (Wiggs *et al.,* 1997, Merin, 2006, and Grove, 1982). Periodontitis is the later stage of the disease process and is defined as an inflammatory of the deeper supporting structures of the tooth mainly caused by microorganisms (Novak, 2006).

A study by Love *et al*. (1990) stated that the normal microflora causing periodontal disease in cats is mainly dominated by genera *Bacteroides* and *Fusobacterium*. However, *Porphyromonas* spp. has been isolated from dental plaque in periodontal diseased cats (Harvey *et al*., 1995). The transmission of bacteria among infected individuals depends on various factors including the source of infection, number of microorganisms involved, route of infection, genetic factors of the microorganisms, frequency of contact, and survival of the microorganism in the environment (Asikainen *et al*., 1997; von Troil-Linden *et al*., 1996).

Periodontal diseases can be detected at early stages by pet owners by identifying abnormalities compared with normal features. Niemiec (2008) stated that the normal gingival tissues are coral pink in colour with a thin, knife-like edge and smooth regular texture. The dentition should be free from plaque or calculus.

It is crucial for pet owners to understand the importance of preventing periodontal disease because it is the most underrated animal health problem. Debowes *et al*. (1996) suggest that there is a possibility that these bacteria can negatively affect the kidneys and liver, leading to decrease in function of these vital organs over time. The consequence of prolonged periodontal diseases includes oronasal fistulas, class II perio-endo lesions, pathologic fractures, ocular problems and increase incidences of oral cancer (Niemiec, 2008).

Recent studies have shown the effectiveness of home care and products, attesting to the benefits that can be achieved through home care efforts by pet owners themselves. A comprehensive home care dental hygiene programme usually consists of tooth brushing, dentifrices and breath enhancers, diet/pet feeding regime, hard edible treats and gingival exercise. An animal with a healthy oral cavity will enjoy better overall health and temperament,

eat better, have better breath and be more acceptable in the home.

CONCLUSION

This study found that there was a notable lack of awareness about periodontal care among cat owners visiting KLVH. The outcome of this study can be used to propose a comprehensive public awareness campaign on the responsibility of pet ownership particularly in periodontal care, which relatively required specific budget. For further research, an extensive study is recommended to assess the awareness level of pet owners in the country. The findings will be beneficial for the development of public awareness programmes at the national level. This study shows significant reason for the establishment of a better "responsibility of ownership amongst cat owners", particularly periodontal care, and hence towards animal welfare.

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