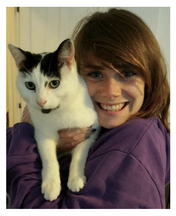

A Longitudinal Study of Gingivitis in Cats

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Background

- Periodontal disease, including gingivitis, is the most common dental disease in cats and is estimated to affect up to 85-95% of cats over two years of age (Bonello 2007)
- If left untreated, gingivitis can develop into irreversible periodontitis
- Severe gingivitis can cause signs of pain, excess salivation and difficulty eating (Rudd 2005)
- **Aim of study:** To estimate the prevalence of gingivitis grade ≥1 (Figure 1) in cats up to 6 years of age, using data from the 'Bristol Cats' study - a longitudinal study of owned pet cats in the UK

Bristol Cats

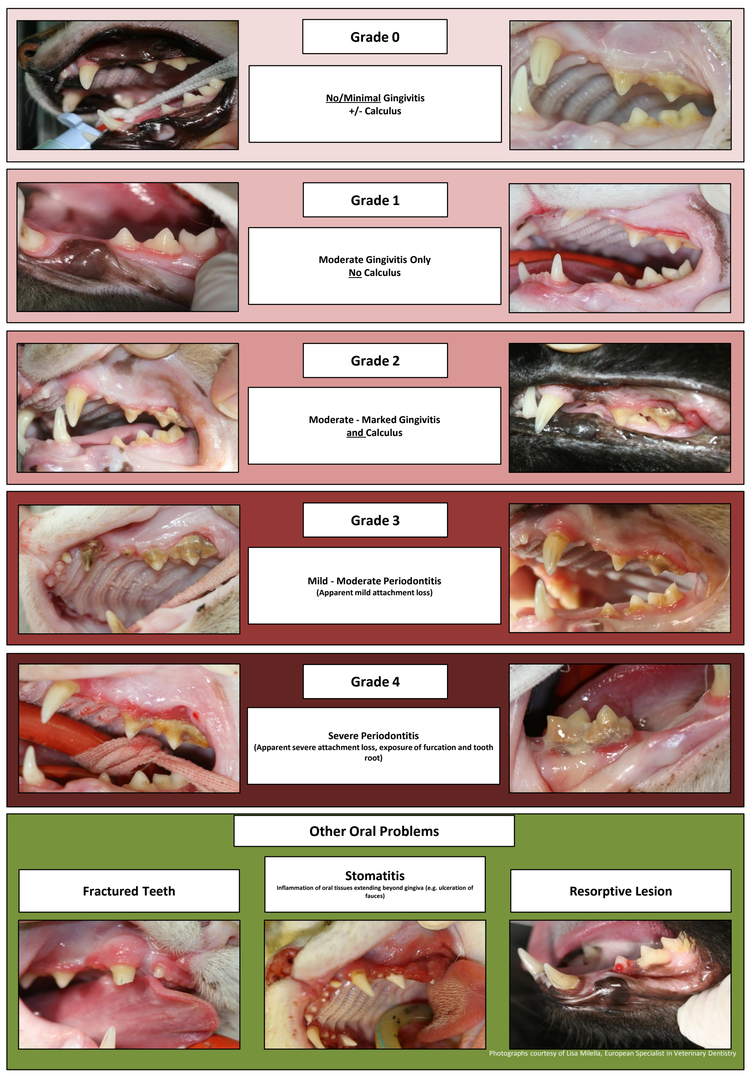

Figure 1: Oral Health Card completed by the vets of 'Bristol Cat' owners

Methods & Results

- Owners recruited onto the 'Bristol Cats' study are sent an oral health (OH) score card (figure 1) annually to be completed by each owner's vet
- A total of 1387 OH cards returned by the end of December 2015 were included in the prevalence calculations
- The results shown in figure 2 demonstrate a clear progressive increase in gingivitis as cats age

Figure 2: Prevalence of Gingivitis in Different Age Groups of Cats in a UK Cohort with 95% Confidence Intervals

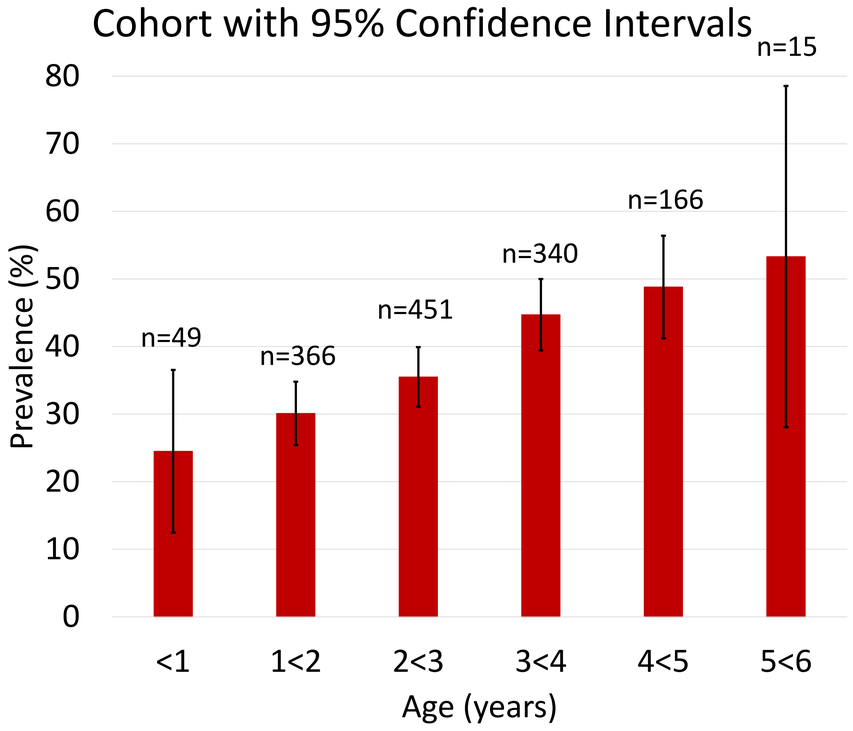

Figure 3: An oral examination of a study cat

Further Research

Validation of Scoring

- In addition to OH card data, a trained independent observer is conducting OH scoring at home visits on 60 cats (figures 3 and 4):
- 30 cats with no OH data to assess non-response bias
- 30 cats with OH data to assess inter-observer variability

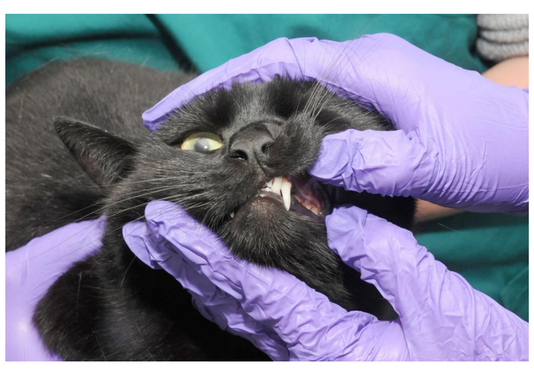

Figure 4: Oral examinations of study cats

Risk Factor Analysis

- The 'Bristol Cats' study uses prospectively collected questionnaire data to identify risk factors for various outcomes
- For the outcome of interest (gingivitis grade ≥1) data relating to cat signalment (breed, gender, neuter status), diet (wet versus dry), outdoor access (i.e. whether the cat has the opportunity to hunt) and home dental care (e.g. brushing teeth, dental treats) will be analysed in order to identify factors significantly associated with the risk of gingivitis
- Univariable and multivariable logistic regression models will be used to analyse the data

References: Bonello, D. (2007) Feline inflammatory, infectious and other oral conditions. In: Tutt, C. Deeprose, J. and Crossley, D. (eds.), *BSAVA Manual of Canine and Feline Dentistry*, 3rd ed. Gloucester: British Small Animal Veterinary Association, pp. 126-147
Rudd, S. (2005) Cat's teeth and their care *Journal of the Feline Advisory Bureau* **43**(1), 26-29

Acknowledgements: All 'Bristol Cat' owners are thanked for their participation. Lisa Milella and Cats Protection are thanked for their help with gingivitis scoring training. Jessica Wilson's MSc is funded by BSAVA Petsavers, Jane Murray's post is funded by Cats Protection, Claire Roberts' post is funded by Zoetis and Emma Gale's post is funded by Waltham. The Alumni Foundation is thanked for their generosity in providing a travel grant.