

Epidemiological study of thyroid masses and hyperthyroidism in senior cats

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Hyperthyroidism is a common debilitating disease of older cats. Thyroid nodules are often palpated in older cats, however many cases are euthyroid. It is unknown if cats with thyroid nodules are at a greater risk for developing hyperthyroidism and over what time frame this occurs. Our aim is to determine if cats over 10 years of age with a palpable thyroid nodule develop hyperthyroidism at a faster rate than those cats without palpable thyroid nodule within a clinically significant time period. Cats over the age of 10 years who presented to the hospital were prospectively enrolled. Every six months, history, physical examination, palpated thyroid size and total serum thyroxine concentrations (TT4) were recorded. Endpoints of the study are the development of hyperthyroidism, or study conclusion. Cats not expected to live 6 months or with hyperthyroidism were excluded from the study. Necropsy and thyroid histopathology was performed after death and when owners consented. A total of 40 cats are currently enrolled. Sixteen cats had thyroid nodules and were followed for a median of 22 months. Four (25%) of these 16 became hyperthyroid over a median of 22 months. Twenty-four cats did not have thyroid nodules and were followed for a median of 13 months. Three of these 24 (12.5%) became hyperthyroid over a median of 22 months. There was no statistically significant difference yet between cats with or without thyroid nodules and the chance of hyperthyroidism developing.

However there was a trend for cats with nodule(s) to develop hyperthyroidism. Additional work continues to investigate this further. We currently have 71 cats that have had a single thyroxine level check. We have diagnosed 39 cases of hyperthyroidism on the first assay with 35 out of the 39 cases having a thyroid nodule (90%) at the time of diagnosis. We have reviewed the records and recorded clinical data on 338 cats that have been seen during the study period.

We are most grateful for the continued support and funding from CAS for this important research.

As for the timeline, this is a little difficult to predict, but we are aiming for 30 cats in each group (i.e. 30 cats with nodules and 30 cats with no nodules). We currently have 16 cats with nodules and 24 cats with no nodules so we aren't far off. In the last month we gained an extra 6 cats with nodules and 7 cats with no nodules.

Though the NZCAHF CAS awards money every year to proposed projects in order to study and improve the health of companion animals within New Zealand. There is information on the NZCAHF available through CAS and the NZVA. Donations are needed to maintain this fund and for more information please contact the CAS secretary or look at the website. ■

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