Oral presentations

Lymphosarcoma in Border collies: a retrospective analysis and possible breed predisposition

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OBJECTIVES

To review outcome of chemotherapy in Border collies with lymphoma and assess for a possible breed predisposition.

METHODS

Medical records of all dogs diagnosed with lymphosarcoma (2009–2017) were reviewed. Breed data were compared to the overall hospital population using a Chi-squared test and Odds ratio. Data collected from the Border collie lymphoma population included signalment, anatomical location, immunophenotype, treatment and survival times.

RESULTS

29,321 dogs were referred during the study period; 940 (3.2%) were Border collies and 981 (3.3%) Boxers. Of 328 dogs diagnosed with lymphosarcoma, 23 (7%) were Border collies and 22 (6.7%) Boxers. Significantly more Border collies ($P=0.0001$, $n=23$ OR:2.3165; 95%CI: 1.5085–3.5573) and Boxers ($P=0.0008$; $n=22$ OR:2.1087; 95%CI: 1.3615–3.2658) were present within the lymphoma population in comparison to the hospital population, suggesting both Border collies and Boxers were over represented.

Of 23 Border Collies, 21 (87%) had multicentric lymphosarcoma, one alimentary, and one primary CNS. Thirteen cases (56.5%) were stage V, six (26%) stage IV and four (17.5%) stage III. Eleven dogs were substage a and 12 substage b. 11/14 (78.6%) cases were B-cell, 3/14 (21.4%) T-cell, and 9 unknown. Date of death was available for 16/20 high-grade MLSA cases, with 3 patients alive at time of analysis. Median survival time (MST) was 87days (all dogs) or 251days (chemotherapy treated); this was not significantly different ($P=0.2369$).

STATEMENT (CONCLUSIONS)

Border Collies were overrepresented in this study, suggesting a possible breed predisposition as for Boxers. MST for border collies receiving chemotherapy was comparable to previously published data.

Transitions in tau protein status in dogs with brain tumours

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OBJECTIVES

Ante-mortem diagnosis for canine brain tumours is limited. Tau protein is highly expressed in the brain and undergoes modifications that can be diagnostically useful. We hypothesised that canine brain neoplasia would be associated with a shifted tau status. Our objectives were to quantitatively evaluate tau status in

post-mortem canine brains, and compare tau status in dogs with, and without, brain tumours.

METHODS

Brain tissue sections were selected from 15 client-owned dogs euthanased on welfare grounds, with written informed consent, ethics approval, and pathologist-assigned diagnosis ($n=5$ brain neoplasm, $n=5$ alternative brain pathology, $n=5$ normal brain). Representative sections of lesion core, lesion edge, and grossly normal tissue were immunohistochemically labelled for tau isoforms and phosphorylated tau. Whole slides were digitally scanned and 5 fields of view ($\times 20$) were selected from each scan by one blinded observer. Tau-positive cells were quantified in ImageJ, with multi-comparison analysis in R, normalizing for age and post-mortem interval.

RESULTS

Phosphorylated tau was increased, and 3-repeat tau expression decreased, in lesion cores relative to normal tissue ($p<0.01$). 3-repeat tau expression was higher at lesion edges in dogs with brain tumours versus other lesions ($p<0.005$). In grossly normal tissue, expression of

all tau forms was reduced in the tumour group relative to normal controls ($p < 0.001$).

STATEMENT (CONCLUSIONS)

These results suggest that brain tau status changes in the context of tumour growth. If confirmed in a larger sample,

this would support development of minimally-invasive tau profiling techniques to accelerate ante-mortem diagnosis and better stratify patients to appropriate treatment protocols.

Investigating the roles and attitudes of first opinion veterinarians during oncology referral

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OBJECTIVES

In human medicine, considerable research about the roles of general practitioners during oncology referral has identified areas for changes, which have potentially benefited both patients and healthcare professionals. Such information, however, does not exist in veterinary medicine. This study's aim is to investigate the roles and attitudes of First Opinion Veterinarians (FOVs) during oncology referral, in order to determine the roles currently played by FOVs and elucidate any concerns

FOVs have regarding oncology and the referral process. The findings will then be compared with similar studies undertaken in human medicine.

METHODS

'RCVS Approved Training Practices' were randomly selected and emailed an online screening questionnaire. Once an FOV had completed the questionnaire, a phone interview was conducted consisting of eleven open ended questions about the clinicians experiences and attitudes. Thematic analysis was applied to transcriptions of the interviews to identify key themes.

RESULTS

Eleven FOVs completed the screening questionnaire nine of whom were interviewed. We found that that FOVs believe that they play a key role in managing patients, and assisting clients to navigate the complex and stressful discipline of oncology. In addition they work to ensure that patient welfare is always the primary concern throughout treatment, as they believe themselves to be guardians of patient welfare.

STATEMENT (CONCLUSIONS)

This preliminary study was the first on this topic in veterinary oncology, providing an insight into the FOV viewpoint and a starting point for future research on the topic.

Biologically aggressive mast cell tumour in puppies with good outcomes: 3 cases

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OBJECTIVES

Canine mast cell tumors (MCT) usually affect older patients; however, occasional reports in younger dogs are reported in the literature. The aim of this study is to describe the clinical presentation, histological characteristics,

prognostic factors (including KIT mutation), and follow up in three puppies which developed biologically aggressive cutaneous MCTs at the age of <6 months and which all had favourable outcomes (even in the absence of aggressive treatments).

METHODS

Retrospective case series including 3 puppies diagnosed with biologically aggressive MCT developed <6 months of age. For each patient clinical presentation, histopathology (+/-immunohistochemistry), c-kit mutations and long term follow up were available.

RESULTS

The three patients developed a MCT between 2 and 6 months of age. Locations were pinna (case 1), bridge of the nose/nasal planum (case 2), and right antebrachium (case 3). Based on histopathology characteristics (+/-immunohistochemistry) and clinical behaviour all