

Flatcoated Retriever Report for AGM, March 2019

Dr Jane Dobson, University of Cambridge

Cause of Death Register

The cause of Death Register was originally designed and built by Dr Mark Holmes using a Filemaker data base which was located on an Apple Mac. Due to increasing problems with access and support our IT Department has been migrating databases away from Filemaker and onto more current servers.

Hence in June 2018 the Cause of Death register was rebuilt in a Qualtrics format. Since this time we have received 44 entries, 23 Female and 21 Male. The Male age mean is 8.71 years with a range of 4-13 years. The Female age mean is 8.69 years with a range of 2-14 years.

The main cause of death reported is 'Tumour or Cancer Related' = 33 cases, 'Old age' accounted for 3 deaths, trauma for 2, and one each for heart disease, infections disease, kidney disease, liver disease, other and unknown (Figure 1).

Tumour types were given for 28 entries, tumour sites are shown in Figure 2.

Tumour type	number
Histiocytic sarcoma	8
Haemangiosarcoma	6
Leukaemia	4
Chondrosarcoma	2
Carcinoma, not specified	3
Neoplasia, not specified	2
Melanoma	2
Lymphoma	1
Mast cell tumour	1
Osteosarcoma	1
Soft tissue sarcoma	1

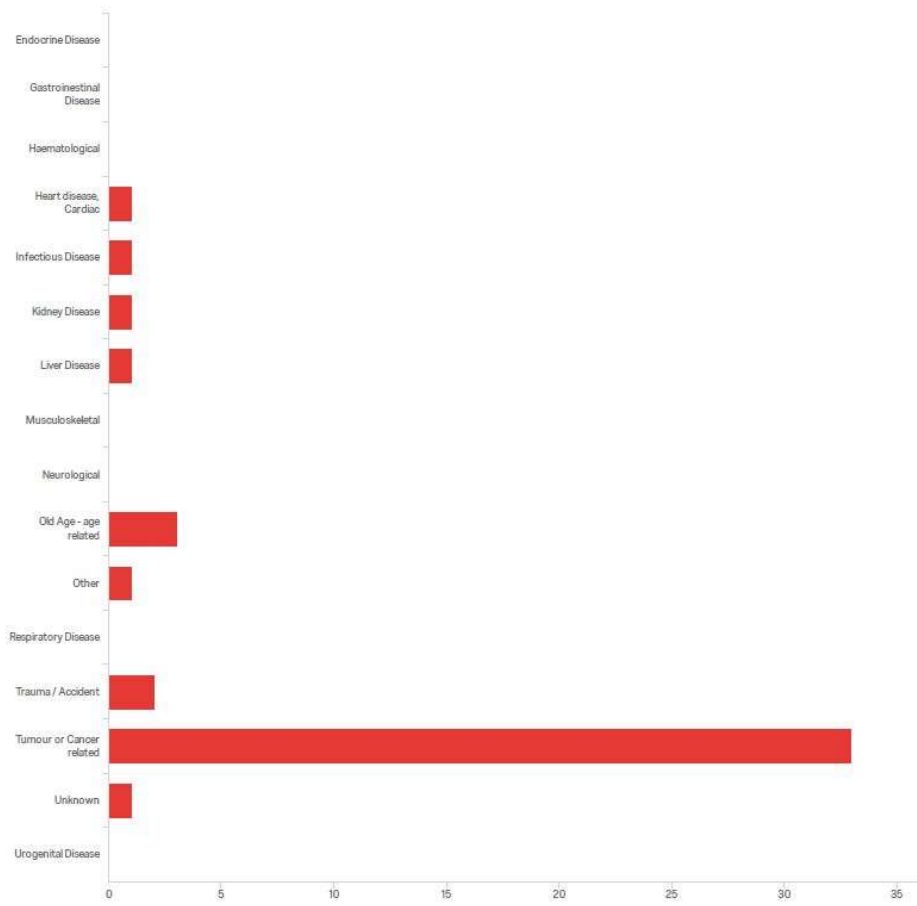


Figure 1 – summary of Cause of Death entries

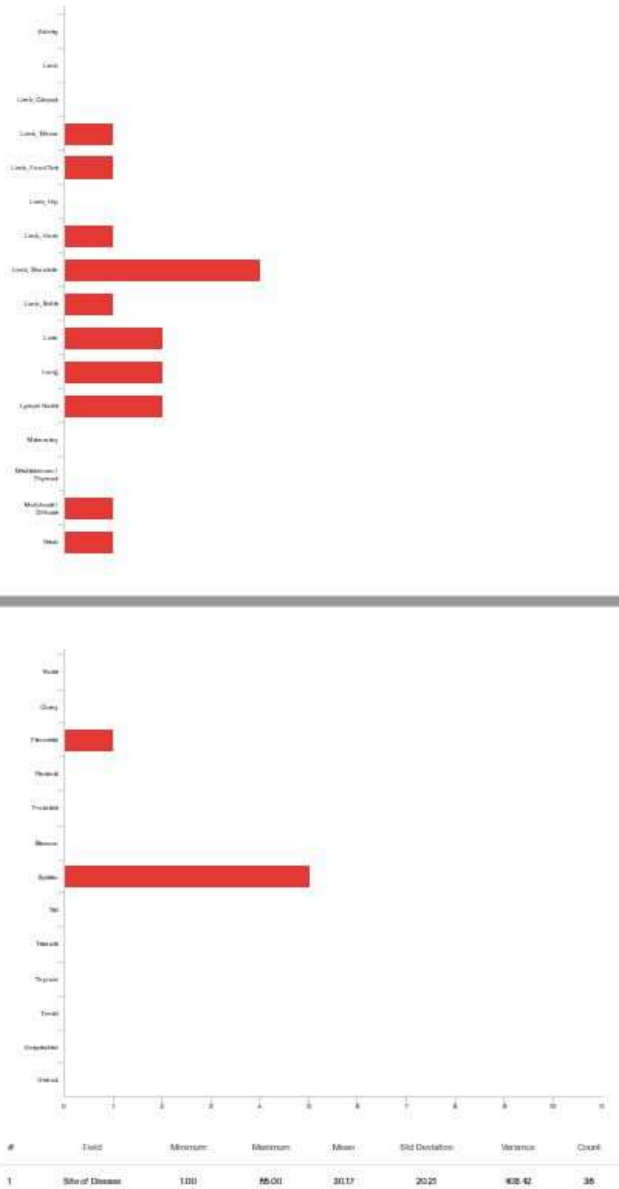


Figure 2: summary of tumour sites.

Other Activities.

Andrea Mosca (Resident in Medical Oncology) presented the attached Clinical Research Poster at the European Society of Oncology (ESVONC) meeting in Gran Canaria in May 2018, detailing the findings of the Cause of Death Register.

Chiara Talamonti was awarded an MPhil from the University of Cambridge for her dissertation 'Evaluation of the microenvironment and immune function in histiocytic sarcoma, a tumour of dendritic cells'. The project confirmed that the lymphocytes infiltrating histiocytic sarcomas are regulatory T cells and identified a possible role for the Programmed Death Ligand 1 (PD-L1) pathway in allowing Histiocytic sarcoma to evade the body's immune system.

Future Directions

We are looking forwards to starting a collaborative study on microRNA expression in Histiocytic sarcoma in 2019 with David Sargan (University of Cambridge) and Anna Hollis & Mike Starkey (Animal Health Trust).

ESVONC congress, 24-26 May 2018, Gran Canaria, Spain



“Cause of Death” Register: a mortality database in the UK-population of flatcoated retrievers



A. Mosca, J. M. Dobson

The Queen’s Veterinary School Hospital, University of Cambridge, Cambridge, UK
oncolgy@vet.cam.ac.uk

Introduction

It is well documented that the flatcoated retriever (FCR) is a breed at risk of neoplasia, particularly histiocytic sarcoma. However, other diseases may be important in this breed. Therefore in 2013, with the help and support of the Breed Society we started a live register for UK FCR owners to enter information on cause of death at the time of losing a FCR.

Methods

The on-line “Cause of Death” Register was devised to collect information regarding sex, colour, genealogy, age and cause of death¹. For tumour related death and other diseases specific sub-classifications were listed. Owners were asked to complete the questionnaire at time of death via the Breed Society web page.

Results

At December 2017 the number of entries into the Cause of Death Register stood at 558 with 509 cases having complete information to allow analysis.

The median age at death was 9 years (range 1-16 years). The most common causes of death were “cancer” (n=336, 66%), “old age” (n=37, 7%) and cardiac and kidney conditions (n=22 and 19, 4% each).

Within tumor related death “sarcoma, soft tissue” was the most common together with “sarcoma, histiocytic” (n=78, 23% and n=65, 19% respectively). “Cardiomyopathy, dilated” accounted for 50% (n=11) of the cardiac causes of death.

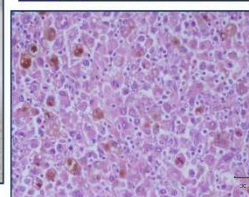
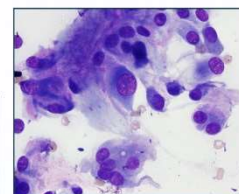
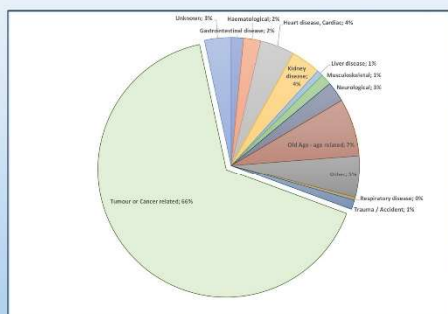



Fig 1. Most common cause of death in FCRs.

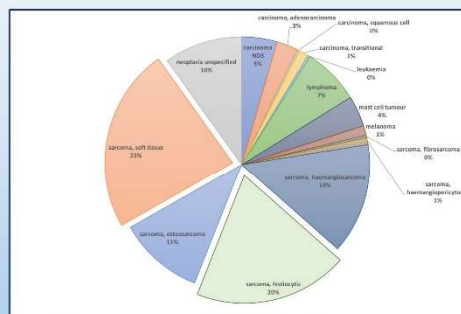


Fig 2. Most common tumour related death in FCRs.

Conclusion

This report is the first to evaluate lifespan and cause of death in a large group of FCRs and via an on-line register. Our findings are consistent with previous studies that reported a similar prevalence of tumours in a UK cohort of FCRs²⁻⁴. Soft tissue and histiocytic sarcomas remained the main cause of death in this breed. Interestingly, heart conditions are the main cause of death in dogs with non-neoplastic fatalities.

The “Cause of Death” register has proven a simple but effective means of gathering information and monitoring the health of this breed and is a tool which could easily be applied to other breeds.

References

- Adams, V. J., Evans, K. M., Sampson, J., & Wood, J. L. N. (2010). Methods and mortality results of a health survey of purebred dogs in the UK. *Journal of Small Animal Practice*, 51(10), 512–524.
- Dobson, J., Hoather, T., McKinley, T. J., & Wood, J. L. N. (2009). Mortality in a cohort of flat-coated retrievers in the UK. *Veterinary and Comparative Oncology*, 7(2), 115–121.
- Morris JS, Bostock DE, McInnes EF, Hoather TM and Dobson JM. (2000). A histopathological survey of neoplasms in flat coated retrievers: 1990–1998. *Veterinary Record* 2000; 147: 291–295.
- Dobson, J. M. (2015). Breed-predispositions to cancer in pedigree dogs. *ISAV Veterinary Science*, 2013(11), 941275–23