

Flatcoated Retriever Report for AGM, March 2020

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Cause of Death Register

The Cause of Death register was rebuilt in a Qualtrics format in June 2018. Since this time we have received 69 fully completed entries and another 10 or so incomplete entries which are mostly not included in the following analysis. 35 entries were for Females and 44, Males (neutering status not reported).

The pattern of entry over 2018 to present is reasonably consistent with between 1 – 4 entries per month (although none in Feb & March 2020 to date)

Table 1

2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
			4	2	3	3	4	4	1	3	2	4
2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
	3	2	4	3	4	1	4	3	2	5	3	1
2020	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
	2											

The main cause of death reported is 'Tumour or Cancer Related' = 56 cases, 'Old age' accounted for 5 deaths, heart disease = 3, Liver disease = 3 (2 failure, 1 cholangiohepatitis) immune-mediated thrombocytopenia = 1, immune-mediated haemolytic anaemia = 1, Seizure = 1 and other = 2.

Tumour types were specified for 51 entries, tumour sites are shown in Figure 2.

Tumour type	number
Histiocytoid sarcoma	21
Haemangiosarcoma	10
Leukaemia	3
Chondrosarcoma	2
Osteosarcoma	2
Carcinoma, not specified	4
Neoplasia, not specified	2
Melanoma	2

Lymphoma	1
Mast cell tumour	2
Osteosarcoma	1
Soft tissue sarcoma	1

As I looked through the entries in the new Qualtrics survey, I note that there are a number of inconsistencies that are of some concern.

- Tumour site, the selected entry is often not consistent with the accompanying comment eg site entered = head, lip, comment 'the tumour started in his/her shoulder'
- 10 tumours were recorded as haemangiosarcoma, yet 7 of these were reported to affect 'limb, shoulder' which is much more consistent with a histiocytic sarcoma.

For this reason I have not attempted to analyse tumour site for this report. I wonder if it is possible to ask your members who have kindly entered dogs, whether we could make the process of entering the data easier or more clear. I am in the process of checking whether there are any problems with the format of the survey at this end.

Future Directions

We are just starting a collaborative study on microRNA expression in Histiocytic sarcoma in with David Sargan (University of Cambridge) and Anna Hollis & Mike Starkey (Animal Health Trust). The tumour tissue for the first part of this study will come from our large archive which was built up over many years through the Tumour Survey which was supported by Flatcoated retriever owners & breeders. Most of the tissues have been identified and are ready to be processed once our Term is ended.



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

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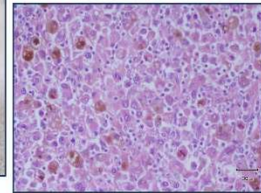
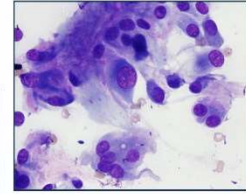
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Introduction

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.

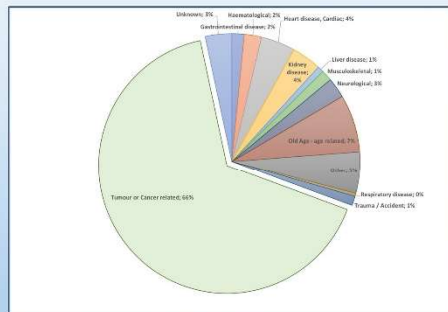
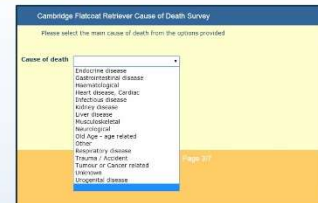
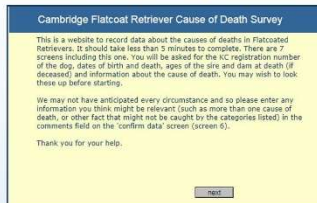


Fig 1. Most common cause of death in FCRs.

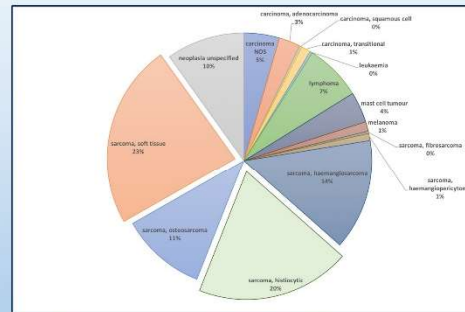


Fig 2. Most common tumour related death in FCRs.

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

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2. 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.
3. Morris JS, Bostock DF, 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.
4. Dobson, J. M. (2013). Breed-predispositions to cancer in pedigree dogs. *ISRN Veterinary Science*, 2013(11), 941275-23



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