

Flat-coated Retriever Report for AGM, March 2017

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Tumour Survey - Archive

During 2016 Tess Hoather was supported by a Bursary from the Flatcoated Retriever Health Committee to archive and catalogue all the tissue and blood samples we have received over the years. This work was completed in September 2016. We have a total of 2033 tissue samples archived in wax blocks, over 200 frozen blood samples and some freshly frozen tissues all of which will provide a valuable resource for future work.

Cause of Death Register

The number of entries into the Cause of death Register now stands at approximately 470 with the addition of 55 dogs since February 2016 (some double / triple entries need to be cleaned up in the data base).

Year of death	Number entries
Pre 2005	11
2005	8
2006	2
2007	11
2008	4
2009	10
2010	18
2011	24
2012	57
2013	116 (+1 added)
2014	81
2015	71 (+ 3 added)
2016	54
2017	3
Total	470

This is down a little from 2014 and 2015, hopefully this report will serve as a reminder to people who sadly lost a dog in 2016 to contribute their information for the Breed.

With respect to sex and neutering status the new entries were: 20 x FN, 7 x FE, 19 x MN and 9 x ME bringing totals to:

Female: 222 160 neutered, 62 entire

Male: 245 125 neutered, 120 entire

And an additional 6 Liver entries bring these figures to: 32 Liver (approx. 7 %) remainder Black

Cause of death, entries, general category

Cause	Number affected		comment
	N	%	
Endocrine disease	0		
Gastrointestinal disease	10		5 GDV
Haematological	10		Haemolytic anaemia, 3
Heart disease	20 (+4)		Dilated cardiomyopathy specified in 2 cases
Kidney disease	21 (+2)		Chronic kidney disease, 1
Liver disease	5 (+1)		Cholangiohepatitis, 1
Musculo-skeletal	5 (+1)		
Neurological	10 (+4)		Stroke or CVA, paralysis
Old Age	31 (+1)		
Other	20 (+1)		Suspected haemorrhage, 3
Respiratory disease	4 (+1)		another laryngeal paralysis
Trauma / accident	5		RTA most common
Tumour / cancer related	306 (+38)		See separate table
Unknown	18 (+1)		Quite a few "sudden death"

The number of cancer-related deaths is still in the ball park of 65% of entries (68% of entries for 2016)

Tumour related cause of Death - 2016 cases

Tumour type	number	Specific type & site	number
Carcinoma	4	Lung	1
		liver	1
		Adenocarcinoma	
		kidney	2
Lymphoma	1	Multifocal/kidney	1
Malignant melanoma	1	multiple	1
Mast Cell Tumour	1		
Neoplasia, unspecified	1	pancreas	1
Sarcoma	30		
		Haemangiosarcoma	7
		Spleen	4
		Heart	1
		Liver	1
		Limb	1
		Histiocytic sarcoma	7
		Soft tissue sarcoma	13
Total	38		

Many people have kindly contributed a lot of detail of their dog's illness and I am hoping that in the coming year we will be able to look at this in more detail and perhaps provide a better insight in terms of reliability of diagnosis for future reports (whether histopathology / other clinical investigations / post mortem examination etc were performed).

Other News.

We have (finally) published a paper in Veterinary Pathology resulting from Dr Marcinowska's investigations into the infiltrating T lymphocytes that we see in many histiocytic sarcomas affecting the breed. We believe that this is an important observation as these cells of the immune system and the microenvironment of the tumours may provide a key target for future therapeutic approaches.

T Lymphocytes in Histiocytic Sarcomas of Flat-Coated Retriever Dogs

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Abstract

Flat-Coated Retriever dogs are predisposed to the development of histiocytic sarcoma (HS), a poorly differentiated, highly malignant neoplasm. The authors have previously documented a significant lymphocytic infiltrate in such tumors. The objective of this study was to examine the presence and expression of regulatory T cells in HS tumor samples. Forty tumors were included in this study. All tumors were immunolabeled for CD3, CD79a, CD25, CD45RA, and FOXP3. The proportion of positive cells was compared between tumors presenting as a localized primary soft tissue mass (soft tissue origin HS) and disseminated HS affecting viscera, especially the spleen (splenic origin HS). By immunohistochemistry, 95% of infiltrating T cells were positive for Foxp3 in all sections, suggesting the presence of regulatory T cells. The proportion of cells positive for FOXP3 was higher in the tumors arising in soft tissues, whereas the proportion of CD45RA-positive cells was higher in the splenic origin HS. Canine HS has an aggressive clinical behavior and is uniformly fatal. The difference in the proportion of tumor-infiltrating lymphocytes positive for these 2 markers in the 2 locations may represent differences in tumor microenvironment between the 2 sites.

In March 2016 we were awarded funding from Petsavers (BSAVA) for a 1 year Masters in Research for a project entitled “ Evaluation of the microenvironment and immune function in Histiocytic Sarcoma, a tumour of dendritic cells”.

We have appointed Chiara Talamonti to start this project in April 2017. One aspect of the project is to evaluate T lymphocyte profiles in the blood of affected dogs, so we would be very grateful to hear of any dogs affected by histiocytic sarcoma over the next 12 months. We would be willing to advise on their management or see them at Cambridge (via referring Vet as per normal – but with reduced Consult fee) as part of this work.

We will be advertising this more actively once Chiara is in post.

Please pass my thanks to all members of the Breed Society for their continued support of our work.

Jane Dobson

8 March 2017