Statement	Strongly Disagree		Disagree		Agree		Strongly Agree	
	1		2		3		4	
	* N	(%)	N	(%)	N	(%)	N	(%)
I believe that all male dogs should be castrated if they are not going to be used for breeding	33	(8.1)	131	(32.0)	141	(34.5)	77	(18.8)
... .. female ... spayed ...	3	(0.8)	18	(4.6)	123	(31.2)	247	(62.7)
... .. female ... spayed before their third heat cycle ...	8	(2.0)	36	(9.1)	135	(34.0)	207	(52.1)
... .. second ...	8	(2.0)	40	(10.1)	146	(36.8)	189	(47.6)
... .. first ..., around 5 to 6 months of age, ...	26	(6.6)	109	(27.5)	136	(34.3)	92	(23.2)
I believe in early spaying for all female dogs if they are not going to be used for breeding	26	(6.9)	105	(27.8)	138	(36.5)	80	(21.2)
I believe that spaying too early may stunt a female dog's growth (i.e. result in physical immaturity)	11	(2.8)	117	(29.8)	191	(48.6)	28	(7.12)

*No opinion responses not shown above.

A new approach proposal to canine reproductive cycle stage determination

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Macroscopic evaluation of the vaginal canal is one of the classical methods in determination of reproductive cycle stage of a canine patient. The main focus of this study is to develop a new and practical method, which is quicker and suited for a larger practitioner base in reaching the conclusive results than classical methods, which require more professional and possibly slower approaches. In the planned approach, the images are collected from the vaginal canal and the cervix through a vaginoscope and analyzed with a software developed specifically for this task. Outcome of the analysis is estimating the correct cycle stage within acceptable accuracy and reject unsuccessful

samples. Through the literature survey, the structure of the study has been planned as collection of images from at least 30 different patients for each reproductive stage which will be labelled by classically approved methods; vaginal smears and measuring hormone levels. The classification model involves segmentation of images in the HSV color space, extraction of certain texture features such as contrast, correlation, energy and homogeneity through gray level co-occurrence matrix (GLCM) and training the Bayesian classifier with cross-validation. The outcome of this classification model is going to be, without any expert intervention, identification of the reproductive cycle stage of the canine patient from the collected images. The statistical texture analysis methods are successfully applied in other areas such as endoscopic analysis and oncological analysis. This work is a pioneer in applying those techniques to veterinary reproductive medicine. Therefore, this study is predicted to be useful for general practitioners as a practical and a less complicated method for cyclic stage determination, which will help maintaining the differential diagnosis list and estimate ovulation time.

The prevalence of collapse in labradors in the uk and its association with exercise

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Exercise induced collapse (EIC) is recognised in Labrador Retrievers (LR) and can lead to muscle weakness and collapse in otherwise healthy dogs. In working LR this can have a negative impact on their utility. The prevalence of EIC in UK LR has not been reported to date. A genetic test for mutated

Dynamin I (DNM1) is available for LR, a mutation that has been associated with EIC in the breed.

The aims of this study were to investigate the prevalence of collapse in UK Labradors, focusing on characteristics of the episodes, particularly whether this was associated with exercise. An additional aim was to determine how many of the dogs had been tested for the DNM1 mutation and associate this with the prevalence and characteristics of the collapse.

A questionnaire was designed and distributed to owners of UK LR, facilitated via the breed health groups. Questions included those specifically relating to the episodes of collapse (e.g. particular characteristics and whether this was at exercise), age of onset, general lifestyle factors and whether dogs had been tested for EIC.

684 questionnaires were returned, of which 88 (13%) LR

had collapsed. The majority, 67 (77%), collapsed during exercise; 21 (33%) Labradors collapsed outside of exercise, most frequently due to orthopaedic disease or epilepsy.

73 (11%) LR in this study had been tested for EIC: 14 (20%) were affected, 12 (16%) were carriers, 47 (64%) were clear. Of the tested LR, 13 had collapsed: 7 were affected, 3 were carriers and 3 were clear. All of the EIC tested LR suffered their collapse during exercise. Many untested collapsing LR, demonstrated similar characteristics of collapse to those reported for EIC.

These findings indicate that collapse during exercise is common in UK LR (13%). Few LR in this cohort were tested for EIC despite most collapse occurring during exercise. Given that only 11% of the dogs in the study were tested for EIC it would suggest that UK LR would benefit from more widespread testing in an attempt to reduce the dissemination of the DNM1 mutation. A number of LR negative for EIC collapsed during exercise, suggesting not all EIC was due to the DNM1 mutation. This should be considered when breeding from symptomatic dogs and warrants further investigation.