required enucleation and one dog died for non-ophthalmic reasons. Maintaining an anti-inflammatory ocular environment was important with subconjunctival and topical steroid medication.

STATEMENT (CONCLUSIONS)

The results detailed here suggest that the Brown drainage device may be a valuable new treatment regime for canine glaucoma.

Variation in intraocular pressure in the normal canine eye between different dog breeds

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OBJECTIVES

Intraocular pressure (IOP) is commonly measured in veterinary ophthalmology with normal IOP generally considered to be between 15 and 20mmHg. But does IOP differ across the normal eyes of different dog breeds? Here we sought to determine this by measuring the IOP in normal eyes of 1000 dogs of differing breeds.

METHODS

IOP was measured in both eyes of 1000 healthy dogs of various breeds with ophthalmoscopically normal eyes. The average IOP of the two eyes was evaluated. Data was

analysed for breeds in which IOP in over 20 dogs had been measured. The difference between mean IOP in dogs of different breeds was determined using the Mann-Whitney U test as the Shapiro-Wilk test showed data to be non-normally distributed. IOP differences between dogs of different genders and ages were evaluated using the Kruskal Wallis test.

RESULTS

IOP values between female entire, female neutered, male entire and male neutered dogs were 16.2 ± 2.9 , 1.4 ± 2.6 , 16.1 ± 2.8 and 16.2 ± 2.4 mmHg respectively, these not significantly different. A weak negative correlation was found between age and IOP with no significant difference across dogs of different ages from 4 weeks to 17.5 years. IOP in eyes of brachycephalic dogs was 17.6 ± 2.5 mmHg and in mesocephalic dogs 15.9 ± 2.5 mmHg, these significantly different at $p < 0.00001$. Pugs had the highest IOP at 19.1 ± 1.5 mmHg while Miniature Schnauzers had the lowest at 14.7 ± 2.7 mmHg.

STATEMENT (CONCLUSIONS)

Although all mean IOP values were within normal limits there is a significant difference in IOP between dogs of different breeds. Brachycephalic breeds had a significantly higher IOP than non-brachycephalic breeds.

Evaluation of blink rate in the normal dog

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OBJECTIVES

Blinking is a key factor in maintenance of a healthy ocular surface and much research has been undertaken on blinking in humans, yet little is known about the normal blink rate in dogs. Spontaneous blink rate (SBR) was determined in dogs with ophthalmoscopically unremarkable eyes. SBR was compared between dogs of different breeds and genders.

METHODS

SBR was determined in dogs either by an observer sitting 5 metres away from the animal and counting blinks per minute over a 5 minute period or using a video camera

set to record the animal over 5 minutes and blinks counted on film later. As no difference in SBR between the two methods was determined the technique with observer present was used in the rest of the study. SBR was compared between brachycephalic and mesocephalic breeds and between male and female dogs.

RESULTS

The overall SBR in the normal dog was 11.5 ± 2.4 blinks/min, with a range from 4 to 26 blinks/min. SBR for 30 mesocephalic dogs was 9.9 ± 1.9 blinks/min. SBR for 30 brachycephalic dogs was 13.2 ± 2.8 blinks/min this significantly different using the students T test at $p = 0.001$. With all breeds considered together SBR for male dogs was 11.6 ± 1.7 blinks/min and SBR for females was 11.4 ± 2.9 blinks/min these not significantly different at $p = 0.1$.

STATEMENT (CONCLUSIONS)

These results document the SBR in the normal dog showing brachycephalic breeds to have a higher SBR than mesocephalic dogs. The importance of this difference has yet to be determined.