A rapid review of surgical techniques for correction of prolapsed nictitans gland in dogs

Constance White1, Marnie Brennan2

1 Fremont Veterinary Clinic, Portland, Oregon, USA
2 University of Southern California Keck School of Medicine, Los Angeles, California, USA
3 University of Nottingham School of Veterinary Medicine and Science, Nottingham, UK

OBJECTIVES
We conducted a systematic and replicable literature search to identify peer-reviewed studies describing surgical techniques and post-operative outcomes for the management of canine prolapsed nictitans gland.

METHODS
We searched CAB Abstracts, PubMed, and Medline using terms relevant to dogs, nictitans gland, and surgery to identify relevant papers.

RESULTS
Twelve papers describing seven different replacement techniques were identified, along with gland excision. All studies were case series with the exception of a single crossover trial. Outcomes reporting was heterogeneous: surgical failure rates were reported in most studies but lacrimal outcome data was underreported. One technique (Morgan pocketing) had a sufficient number of reports to allow proportional meta-analysis, yielding a summary failure rate of 7% (95% CI 3–11%). Breed-specific recurrence rates were not available in sufficient detail from most studies for adequate data extraction.

STATEMENT
There is insufficient evidence to show equivalence or superiority of identified surgical techniques, particularly for the management of ‘difficult’ breeds. Heterogeneous reporting of outcomes and breed composition of patient populations, small study size, and potential sources of bias make it difficult to draw conclusions on post-operative recurrence, complications, and long term lacrimal outcomes. Procedures vary in technical difficulty. The Morgan pocketing technique appears to have an overall low surgical failure rate and may be most easily adapted to a general practice setting. However, relative success of this procedure in ‘difficult’ breeds is not well documented. Better quality evidence with more uniform reporting may allow improved selection of procedures tailored to the patient and clinician.

Effect of body position, eyelid manipulation and manual jugular compression on intraocular pressure in clinically normal cats

Seyed mehdi Rajaei1, Mohammad Reza Rajabian4, Faezeh Asadi3, Maneli Ansari mood2

1 Department of Clinical Sciences, College of Veterinary Sciences, Karaj Branch, Islamic Azad University, Karaj, Alborz, Iran
2 Department of Clinical Sciences, Faculty of Specialized Veterinary Sciences, Science and Research Branch, Islamic Azad University, Tehran, Tehran, Iran
3 Faculty of Veterinary Medicine, University of Semnan, Semnan, Semnan, Iran
4 Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran

OBJECTIVES
To determine the effect of body position, eyelid manipulation and manual jugular compression on intraocular pressure (IOP) in clinically normal cats

METHODS
Twenty-one clinically normal intact domestic short-haired cats ranging in age from 14 to 26 months without any disease or medication were used in this study. The rebound tonometer (TonoVet®, icare, Helsinki, Finland) were used for intraocular pressure measurement. IOP was measured in sternal (baseline values) and ventrodorsal body position. Four manipulations were used in each eye, including maximal dorsoventral extension of the eyelids, lateral eyelid extension, compression of the right jugular vein, compression of the left jugular vein, and manual compression of both jugular veins.

RESULTS
Overall mean±SD IOP values of all eyes in sternal body position, ventrodorsal body position, maximal dorsoventral extension of the eyelids, lateral eyelid extension, compression of the right jugular vein, compression of the left jugular vein and compression of the both jugular vein were 16.1±2.9 mmHg, 17.1±5.0 mmHg, 21.7±5.8 mmHg, 22.4±5.6 mmHg, 15.0±3.7 mmHg, 14.9±3.7 mmHg.