

Surgical Correction and Prevention of Third Eyelid Gland Prolapse: A Retrospective Study



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Duer AG, 1 Boveland SD, 1,4 Hofmeister EH, 1 Zarfoss MK, 2 Nelms S, 3 Moore PA, 1

College of Veterinary Medicine, Auburn University, Auburn, AL, USA; 1 PETS Referral Center, Berkeley, CA, USA; 2 Veterinary Eye Care, Bessemer, AL, USA; 3 College of Veterinary Medicine, Tuskegee University, Tuskegee, AL, USA; 4

Introduction

Prolapse of the third eyelid gland – known colloquially as “cherry eye” – primarily affects younger dogs, with breed predilections noted in the American Cocker Spaniel, Beagle, Boston Terrier, English Bulldog, Lhasa Apso, Pekingese, and Shih Tzu.¹ If left untreated, the gland can become irritated, and the affected eye may be predisposed to develop keratoconjunctivitis sicca.² Treatment usually consists of repositioning the gland using anchoring and/or pocketing of the gland.¹

Purpose

Evaluate the effectiveness of surgical techniques to correct third eyelid gland prolapse (TEGP), to prevent re-prolapse, and their effectiveness as a prophylactic treatment

Methods

Multi-center retrospective analysis was conducted on medical records of 266 dogs (412 eyes) that had surgery for TEGP between 2008 and 2019. The following data were collected from medical records of dogs that presented for surgery to repair third eyelid gland prolapse: age, sex, breed, eye(s) affected, prolapse duration, prophylactic treatment of the contralateral eye, occurrence of the prophylactically treated eye, medical management before surgery, duration of treatment prior to surgery, surgical procedure(s), post-surgical treatment(s), follow-up duration, re-prolapse of treated eye(s), time to re-prolapse, prolapse after prophylactic treatment, complications, and concurrent ocular conditions. Of the 266 records in the study, 245 dogs (397 eyes) underwent surgery to treat TEGP. Univariate analysis was conducted using Fischer’s Exact Test for 2x2 comparisons and Chi-Squared for all others, with $p < 0.05$.



Figure 1. (9 month old male intact Rottweiler – not included in case study) **1A:** Prolapsed gland of the third eyelid with mild hyperemia of the conjunctiva OS; **1B:** Gland repositioned using Morgan pocket technique with moderate chemosis of conjunctival tissue immediately post-surgery



Figure 2. (1 year old female intact Cane Corso – not included in case study) **2A:** Prolapsed gland of the third eyelid with mild hyperemia OD; **2B:** 13 day recheck, gland repositioned using intra-nictitans tacking and Morgan pocket techniques with slight elevation of the third eyelid with mild hyperemia

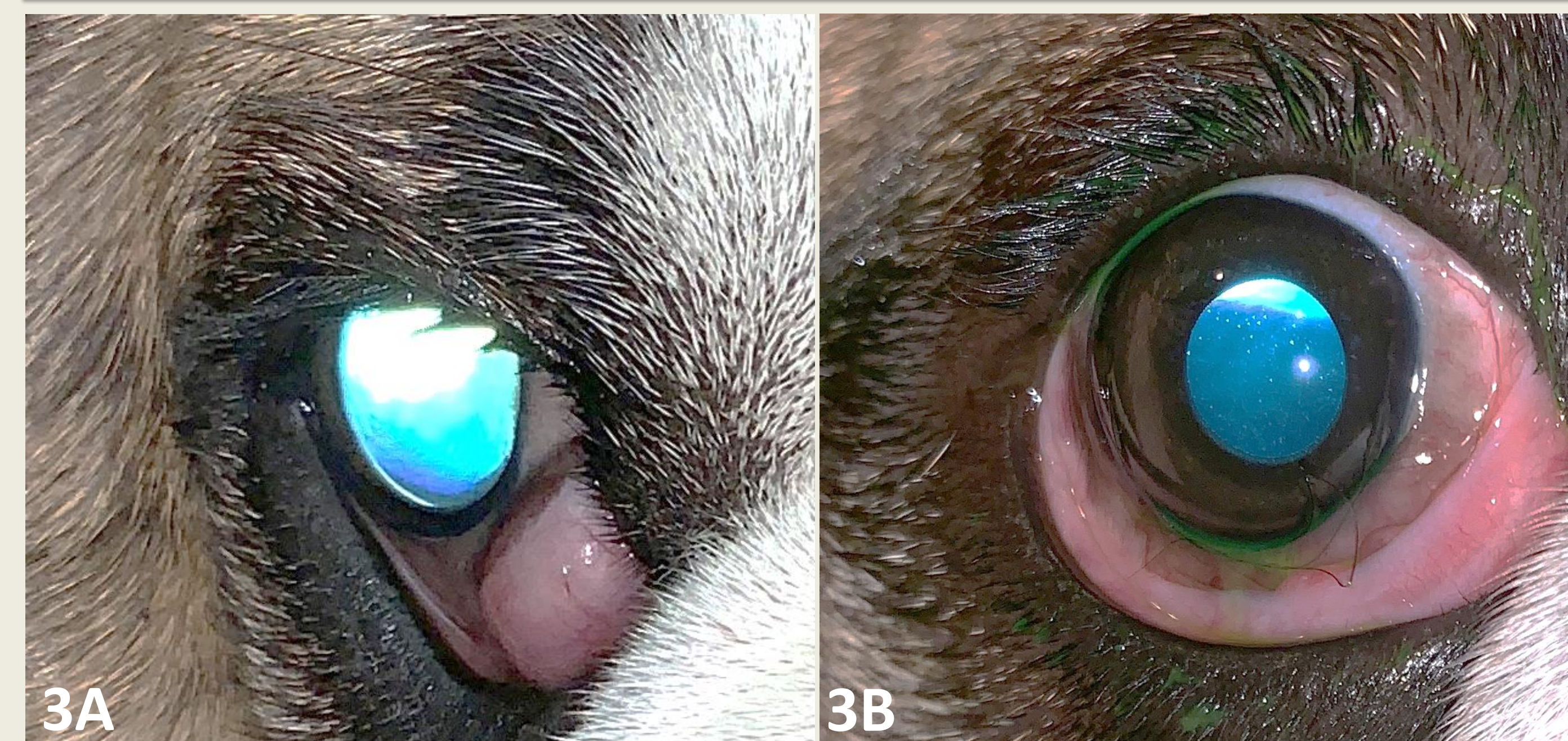


Figure 3. (6 month old male intact English Bulldog – not included in case study) **3A:** Prolapsed gland of third eyelid with mild chemosis OD; **3B:** Post-operative, gland repositioned using Morgan pocket technique with mild hyperemia

Results

Surgery was performed on 397 eyes. The Morgan pocket (MP) technique was performed in 375 eyes, orbital rim tacking in 1 eye, combined MP-orbital rim tacking in 7 eyes, and combined MP-intra-nictitans tacking in 14 eyes. Successful repositioning was attained in 374/397 eyes. Re-prolapse occurred in 23/397 eyes. No correlation was found between surgical procedure(s) performed and re-prolapse ($p=0.11$). Re-prolapse was statistically significantly more common in castrated males than in spayed females ($p < 0.07$).

Of the 397 eyes, 83 of the contralateral eyes were treated prophylactically based on surgeons’ preference. One prophylactically treated eye re-prolapsed.

Conclusions

Morgan Pocket technique alone or in combination with other surgical techniques was successful in correcting TEGP. No surgical procedure was significantly more effective at preventing re-prolapse. Benefits of prophylactic treatment of TEGP could not be determined. No concurrent ocular conditions correlated with TEGP.

Select References

1. Martin CL. *Ophthalmic Disease in Veterinary Medicine*. London: Manson Publishing/The Veterinary Press, 2005.
2. Plummer C, Källberg M, Gelatt K, et al. Intranictitans tacking for replacement of prolapsed glad of the third eyelid in dogs. *Veterinary ophthalmology* 2008; 11:228-233.

Acknowledgements

Thank you to Dr. Mitzi Zarfoss, Dr. Susan Nelms, Dr. Erik Hofmeister, and the AUVTH ophthalmology service faculty and staff for their contributions.