



ISSN: 2456-2912

VET 2024; 9(2): 521-522

© 2024 VET

www.veterinarypaper.com

Received: 01-01-2024

Accepted: 06-02-2024

Vijayakumar M

Assistant Professor,
Department of Veterinary Surgery
and Radiology, Veterinary College
and Research Institute, Namakkal,
Tamil Nadu, India

Dhivyabharathi D

M.V.SC., Scholar, Department of
Veterinary Surgery and Radiology,
Veterinary College and Research
Institute, Namakkal, Tamil Nadu,
India

Kumaresan A

Professor, Department of Veterinary
Surgery and Radiology, Veterinary
College and Research Institute,
Namakkal, Tamil Nadu, India

Kathirvel S

Professor and Head,
Department of Veterinary Surgery
and Radiology, Veterinary College
and Research Institute, Namakkal,
Tamil Nadu, India

Kokila S

Assistant Professor,
Department of Clinics, Veterinary
College and Research Institute,
Namakkal, Tamil Nadu, India

Velavan A

Associate Professor,
Department of Clinics, Veterinary
College and Research Institute,
Namakkal, Tamil Nadu, India

Dharmaceelan S

Professor and Head,
Department of Clinics, Veterinary
College and Research Institute,
Namakkal, Tamil Nadu, India

Corresponding Author:

Vijayakumar M

Assistant Professor,
Department of Veterinary Surgery
and Radiology, Veterinary College
and Research Institute, Namakkal,
Tamil Nadu, India

Surgical management of Nictitans membrane prolapse in a Persian cat: A case report

Vijayakumar M, Dhivyabharathi D, Kumaresan A, Kathirvel S, Kokila S, Velavan A and Dharmaceelan S

DOI: <https://doi.org/10.22271/veterinary.2024.v9.i2h.1252>

Abstract

A 4 ½ month male Persian cat was brought to the Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal, Tamil Nadu with the history of reddish protruded growth / mass on the right eye with lacrimation for past one month. On clinical observations, the distance examination revealed the presence of vision on both eyes. Further, the growth was examined on the right eye which was originated from the third eyelid. The ophthalmic examinations were performed. All the physiological and haemato-biochemical parameters were within the normal range. To maintain the aesthetic appearance and to relieve the cat from such annoying growth, the condition was explained to the owner and surgical intervention was carried out.

Keywords: Nictitans, management, prolapse, Persian, cat

Introduction

Cherry eye is a disorder of the nictitating membrane, also called the third eyelid present in the eyes of dogs and cats. In many species, the third eyelid plays an essential role in maintaining eye health by supplying oxygen and nutrients to the eye via tear production (Shakibapour and Paryani, 2023) [5]. Normally, the gland can turn inside-out without detachment. This defect causes the gland to prolapse and protrude from the eye as a red fleshy mass. Problems arise as sensitive tissue dries out and is subjected to external trauma. Exposure of the tissue often results in secondary inflammation, swelling or infection. If left untreated, this condition can lead to dry eye syndrome and other complications (Turner, 2008) [6]. Nictitating membrane disorders rarely occur in the cat and prolapse of the nictitans gland is also quite uncommon. Most of the described cases have been reported in the Burmese breed (Koch SA, 1979; Albert *et al.*, 1982 and Christmas, 1992) [4, 1, 3] which may suggest abreed predisposition. More recently, one case has been described in a Persian cat with the similar study by Chahory *et al.* 2004 [2]. In this case, a surgical technique was performed to preserve the nictitans gland, with excellent results and no recurrence. To the author's knowledge, no case of prolapse of the nictitans gland has been reported in other feline breeds.

History and clinical observations

A 4 ½ month male Persian cat was brought to the Veterinary Clinical Complex, Veterinary College and Research Institute, Namakkal, Tamil Nadu with the history of reddish protruded growth / mass on the right eye with lacrimation for past one month. The cat was treated with eye drops and owner reported that no improvement was observed. On clinical observations, the distance examination revealed the presence of vision on both eyes. Further, the growth was examined on the right eye which was originated from the third eyelid (Fig. 1). The ophthalmic examinations like vision test and reflexes (Menace, Pupillary Light Reflex, cornea) were performed. All the physiological and haemato-biochemical parameters were within the normal range. To maintain the aesthetic appearance and to relieve the cat from such annoying growth, the condition was explained to the owner and surgical intervention was carried out.

Surgical management and post-operative care

The cat was anaesthetized with Xylazine @ 1mg/kg body weight + Ketamine @ 20 mg/kg body weight + Diazepam @ 0.5 mg/ kg body weight as intramuscularly. The animal was restrained in a left lateral recumbency to expose the right eye. The growth on third eyelid of right eye was flushed with normal saline and prepared for surgical procedure. The tissue was held by the forceps to ligate with synthetic absorbable suture material and resection was performed (Fig. 2). The minor bleeding was controlled by moist cotton and antibiotic were received by the animal followed by anti-inflammatory. Post operatively, the cat was maintained with susp. Amoxicillin + Clavulanic acid, Eye drop. HICOOL (lubricant), eye drop. HIGATI (Gatifloxacin). Animal was advised to support with Elizabethan Collar. The animal was recovered uneventfully.



Fig 2: Resection technique performed on right eye

Discussion

“Cherry eye” is the colloquial term that is used to describe a rare eye problem in cats that is correctly called third eyelid gland prolapse or prolapsed gland of the nictitating membrane. This article will explain the details of cherry eye in cats and make it easier for pet carers to understand how to help cats suffering from this condition (Wedderburn, 2023) [9]. This third eyelid is located in the inner corner of the eye and it is normally hidden from view. When a cat blinks, this third eyelid shoots across the surface of the eye from side to side, wiping the surface of the eye clean. Cherry eye is rare in cats, while it's far more common in dogs. It is not known what causes cherry eye, although there may be a genetic element. It is seen more often in Burmese cats, and it has been reported in Persians as well as domestic short-haired cats (Tilley and Smith, 2015) [8]. In cats, cherry eye is seen more commonly in kittens and young adult cats (less than six years of age) although it can be seen in cats of any age. Here are several different possible treatments, with three main approaches commonly used, all involving some type of surgery. The third surgical procedure followed was simply involves the removal of the gland that forms the cherry eye. While this is quick and relatively simple to do (and so it is often cheaper), the weakness of this approach is that tear production in the eye is significantly reduced by removing this gland, leaving the cat prone to keratoconjunctivitis sicca (KCS or dry eye), a disorder that requires lifelong medications such as eye drops to maintain eye health (Gelatt and Brooks, 2011) [7].



Fig 1: Protruded growth on the third eyelid (Harderian gland prolapse) – right eye

Conclusion

The surgical management and post-operative care for the cat with third eyelid gland prolapse were conducted successfully, resulting in an uneventful recovery. Anesthesia, surgical procedure, and post-operative medication administration were carried out meticulously, ensuring the well-being of the animal. The discussion highlights the rarity of cherry eye in cats compared to dogs, possible causes, and predisposition in certain cat breeds. Various surgical approaches were discussed, emphasizing the importance of considering long-term consequences such as reduced tear production and the potential development of dry eye post-gland removal surgery. This comprehensive approach aims to improve understanding and provide effective care for cats with cherry eye.

References

1. Albert RA, Garrett PD, Whitley DR. Surgical correction of everted third eyelid in two cats. *Journal of the American Veterinary Medical Association*. 1982;180(3):763-766.
2. Chahory S, Crasta M, Trio S, Clerc B. Three cases of prolapse of the nictitans gland in cats. *Ophthalmology Unit, National Veterinary College of Alfort*, 2004;7(6):417-419. Blackwell Publishing, Ltd.
3. Christmas R. Surgical correction of congenital ocular and nasal dermoids and third eyelid gland prolapse in related Burmese kittens. *Canadian Veterinary Journal*. 1992;33:265-266.
4. Koch SA. Congenital ophthalmic abnormalities in the Burmese cat. *Journal of the American Veterinary Medical Association*. 1979;174(2):90.
5. Shakibapour E, Paryani M., Morphological and histological study of the third eyelid in hedgehogs. *Veterinary Medicine and Science*. 2023;9(5):2078-2084.
6. Turner M. Saunders solutions in veterinary practice: Small animal ophthalmology. Elsevier Health Science. 1st Edn. 2008, p. 50-55.
7. Gelatt KN, Brooks DE. Surgical procedures for the conjunctiva and the nictitating membrane. *Veterinary ophthalmic surgery*. 2011;1:157-190.
8. Tilley LP, Smith FW. Blackwell's five-minute Veterinary consult: canine and feline. John Wiley and Sons. 6th Edn. 2015, p. 43-49.
9. Wedderburn P. Cherry Eye in Cats: Causes, Symptoms, and Treatment; c2023.