

Non-Surgical Treatment of Unilateral Cherry Eye in Shih-Tzu Puppies

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INTRODUCTION

Prolaps of third eyelid gland is a disease of young dogs, from 4 weeks to 2 years of age. Prolaps of the gland may appear as a red mass in the medial canthus. The prolaps is sudden in onset but it may regress once or twice for a few days and finally returns to remain for the animal's life. Certain breeds such as the American Cocker Spaniel, English Bulldog, Boston Terrier, Lhasa Apso, Shih-Tzu, Beagle, and Pekingese are more prone to develop the condition. The etiology is unknown, and there is disagreement as to whether inflammation predisposes the animal to prolapsed [1]. Prolapse of the nictitans gland mainly seen in the dog, unilateral or more frequently bilateral, and usually one eye following the others, often in young dog including puppies, and known as "cherry eye" [2]. A thorough, relevant history is an important part of the diagnostic process. To use the problem-oriented approach, the clinician first determines the major problems that have caused the owner to present the animal for examination. An ophthalmic examination requires a minimum of equipment (Focal light source, Magnifying loupes, Direct ophthalmoscope, Indirect fundoscopic lens, Schirmer tear test strips, Fluorescein test strips, Tonometer, Tropicamide (1%), Proparacaine / topical anesthetic, Sterile eye wash/rinse) [3]. Initial treatment with a topical antibiotic/steroid preparation may appear transiently to cause the gland to become replaced. Although not recommended by veterinary ophthalmologists, excision of the gland is still widely practiced by the general practitioner [1].

CASE REPORT



Fig. 1. Meggie (left) and his left eye (right)

Meggie came to animals clinic FKH UB and the owner said Meggie has problem in his left eye, swollen, red mass at corner of eye. The result of anamnesis and physical examination: Meggie is a 4 month old, male puppies, Shih-Tzu, body weight 2,1 kg, body temperature 39,1°C, pulse 120/min, breath 40/min, CRT < 2 sec, no vomit, no diarrhea, decreasing feed intake and he has prolaps glands of the third eyelid for 2 days. Differential diagnose from this clinical case are keratoconjunctivitis, glaucoma, corneal ulcer and keratitis, but from the vital sign showed prolaps of third eyelid that's mean "cherry eye". The prolaps gland appears as small red mass that protrude from behind the third eyelid. This gland is vital because its produce tears and for lubrication of the eye. Schirmer tear test that measures that for adequate tear production is still good (greater than 16 mm/minute) and fluorescein strip test result is negative (not show fluorescein color at his left eye). Meggie has diagnose *unilateral cherry eye*. There are two choice for treatment : non surgery and surgery. In this case non surgical treatment are choosed because early stage of cherry eye by using doxycycline (per oral); rimadyl® (per oral) ; Matovit® syrup (per oral) ; Curcuma plus® syrup (per oral), Eye rinse® wash solution, Atropin Sulfat 1% eye drops, and Oxytetracycline eye ointment.



Fig. 2. After 3 days treatment (left); After 7 days treatment (center); After 14 days treatment (right)

This treatment given 2 weeks, meggie get better than before. In the fig. 2 (right) showed that third eyelid prolaps was not present and mucous at his eye. It's means that non surgical treatment for early cherry eye are work and giving good result.

DISCUSSION

Cherry eye or follicular ophthalmitis is a gland lump in the nictitans membrane due to weakness of connective tissue attached between the ventral membrane and periorbital tissue, so that the glands swell and impress the prominent like a cherry. Cherry eye can affect on bilateral eyes or unilateral eyes and mainly condition seen frequently in dog under 2 years old (4). This condition found in Meggie puppies, he got unilateral cherry eye on early stage which showed swelling, accumulation of mucous, debris, anorexia, fluorescent test result is negative and result of Schirmer tear test that measures that for adequate tear production is still good.

Treatment of cherry eye on early stage and very small prolaps can use antibiotic-steroid which given topical on eye 4 times/day belong 5-7 days with no ulcer must be sure at first (4). Meggie got non surgical treatment by using doxycycline (dose 5-10mg/kg q12h p.o for 7 days); rimadyl® (ketoprofen) (dose 1mg/kg q24h p.o for 7 days) ; Matovit® syrup (Bilberry, Retinol, β -karoten, dan Vitamin E) (dose 2 ml q12h p.o for 14 days) ; Curcuma plus® syrup (dose 2 ml q12h p.o for 14 days), Eye rinse® wash solution (dose 3 ml b.d.d eye topical for 14 days), Atropin Sulfat 1% eye drops (dose 1-3 drops q6-12h for 14 days) and Oxytetracycline eye ointment (dose little bit q6-12h eye topical for 14 days).

Doxycycline (oral) and oxytetracycline (topikal) are kind of tetracycline antibiotic which has function as bacteriocidal. Rymadil (oral) and atropine sulfas 1% (eye drop) have function as anti inflammation to reduce the swollen of eye. Eye rins is water solution has function to clean the eyes before topical drug given. Matovit syrup is multivitamin which contain of herbal medicine has specific function to make eyes be health. Curcuma plus is multivitamin to increase feed intake. Meggie gets good progress day by day which showed on fig. 2. That picture showed at day's 3rd prolaps are reduce and clear at day's 7th, but the topical treatment have been given until day's 14th to make sure the cherry eye was not found.

CONCLUSION

Cherry eye is a gland lump in the nictitans membrane due to weakness of connective tissue attached between the ventral membrane and periorbital tissue, so that the glands swell and impress the prominent like a cherry. It can be done bilateral of eyes or unilateral of eyes. Tsihtzu is one of breed predisposition for this problem and puppies has more fluently got it. In early stage of cherry eye, non surgical treatment by using antibiotics, anti inflammation and multivitamins can be used. In this case, they works well so meggie got his normal left eye on day's 14th.

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