Proceedings of the
European College of Veterinary Ophthalmologists
and of the
European Society of Veterinary Ophthalmology

May 10-14, 2006 - Brugge Belgium

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A new surgical approach to treat epiphora in dogs and cats: Dacryocystorhinostomy with topically applied Mitomycin-C® associated with eyelids correction.

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Purpose:
The purpose of this study is to treat chronic epiphora surgically by the construction of a large permanent fistula between the lower conjunctival fornix and the maxillary recess or the nasal cavity, associated, if necessary, with eyelids correction.

Material and Methods:
This study is based on the surgical treatment of epiphora in 16 dogs (30 eyes) and 3 cats (5 eyes) from November 2003 until December 2005.

The surgery is performed under general anaesthesia according to the following procedure:
− Opening of the lacrimal canaliculi and the lacrimal sac up to the bone,
− Perforation of the lacrimal bone to create a fistula to a diameter of 5 mm between the orbit and the maxillary recess or nasal cavity,
− Application on the orifice of a Mitomycin-C® (Kyowa Hakko Kogyo, Japan) impregnated swab (0,2mg/ml) for 10 minutes, as an anti-fibroblastic agent,
− Correction of the medial canthus or lower eyelid.

Post-operative treatment includes a topical ointment containing antibiotics and corticosteroids 3 times a day for 10 days.

Results:
Results are considered as good if animals had no or a strongly reduced epiphora and satisfied owners. The success rate on operated patients was about 90% with a follow-up from 5 to 36 months. The animals were systematically controlled 2 to 3 weeks after the operation and a Schirmer test was performed, which was always in the norms. The animals are then followed up every 6 to 12 months clinically or by phone.

We encountered no major post-operative complications. No infection occurred. Two dogs had a slight bleeding during the 12 hours after the operation, which resolved without medication.

A Cavalier King Charles Spaniel that had a dacryocystorhinostomy alone needed an additional eyelid correction to resolve the epiphora.

One case of failure has been observed on both eyes of a cat suffering from a symblepharon.

5 eyes treated with dacryocystorhinostomy associated with combined tarsorrhaphy-canthoplasty (Bigelbach, 1996) presented a wound dehiscence, but only one needed a second surgery to correct it.

Conclusion:
This new approach of surgical treatment of epiphora, which combines the creation of a large fistula with the use of intra-operative applied Mitomycin-C® and eyelids correction, has the major advantage of being a one-step technique by restoring the lacrimal dynamic.

Support: none.