

Ophthalmology Snapshot

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History

A female domestic short-haired cat of unknown age was presented to the Ophthalmology Clinic, Small Animal Teaching Hospital, Faculty of Veterinary Science, Chulalongkorn University. She was rescued from the roadside when she was a kitten. The owner had noticed the abnormality of her left eye ever since.

Table 1 Routine ophthalmic examinations before/after surgery (a; incomplete/partial, Sx; surgery, N/A; not being examined)

Examination	Right eye	Left eye (before Sx)	Left eye (after Sx)
STT 1 (mm)	11	>35	20
Menace response	+	-	+
Dazzle reflex	+	+	+
Pupillary light response	+	N/A	+
Blink reflex	+	+ ^a	+



Figure 1 A photograph of the DSH cat; left eye was apparently abnormal.

(For better quality, figures can be viewed in the TJVM website)

Question

Give the diagnosis of the left eye

Please turn to the next page for answers

Answer***Symblepharon***

Figure 2 Photographs of the left eye; a close up (2A), during surgical procedure (2B), revealing clear cornea after surgery (2C).
(For better quality, figures can be viewed in the TJVM website)

Comments

Herpes viral infection is common in cats, especially in kittens that can easily be exposed during birth if mother is infected or from direct contact with infected individuals. Adult cats can develop chronic upper respiratory tract diseases from aerosol transmission or when they are immunocompromised. This cat was rescued from the roadside since she was very young. It is possible that she had been exposed to feline herpes virus (FHV-1) widespread in the cat population.

Ocular organs manifested with FHV-1 are conjunctiva and to a lesser degree, cornea. If conjunctivitis is severe, not only conjunctival hyperemia and chemosis are apparent, fibrinous and cellular exudates also occur on ulcerated conjunctival surface. If left untreated, these infected areas will inappropriately adhere to each other, symblepharon. As in this case, a permanent sheath of tissue covering the anterior surface of the eye causes eyelid immobility, blindness (Table 1; column 2, negative menace response) and possibly, scarring of tear

drainage (Table 1; column 2, extremely high STT 1 value).

Excision of fibrous adhesion was performed (Fig 2B). Adhesion involved conjunctiva and nictitating membrane. After these tissues were separated, the conjunctiva was sutured to its normal location. The cornea was not involved as it has been clear (Fig 2C). Therefore the cat has fortunately become visual after surgery (Table 1; column 3, positive menace response). If cornea is severely damaged, amniotic membrane transplantation associated with excision of tissue adhesion will be an alternative.

References

- Barros PSM, Safatle AMV, Godoy CA, Souza MSB, Barros LFM and Brooks DE 2005. Amniotic membrane transplantation for the reconstruction of the ocular surface in three cases. *Vet Ophthalmol.* 8(3): 189-192.
- Stiles J and Townsend WM 2007. *Feline Ophthalmology.* In: *Veterinary Ophthalmology.* 4th ed. KN, Gelatt (ed.) Ames: Blackwell Publishing. 1102-1105.