

## Ophthalmology Snapshot

Nalinee Tuntivanich

### History

A 13 yr-old female, spayed cat was referred from a private animal hospital to the Small Animal Teaching Hospital, Chulalongkorn University with a history of persistent ocular pain during the past 2 weeks. The cat did not respond to chloramphenicol eye ointment applied

once daily. Initial ophthalmic examinations of both eyes revealed positive menace response and pupillary light reflex. STT levels were 5 and 7 mm of wetness on the right and left eye, respectively.



**Figure 1.** A photograph of the cat presented with unilateral ocular pain.

### Questions

1. Which eye is abnormal? What is that abnormality?
2. Please give differential diagnosis.
3. What ophthalmic examinations are necessary to perform on this case?

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

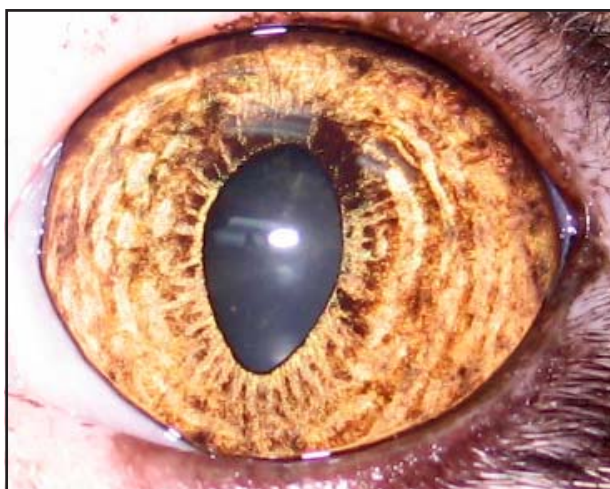
Please turn to the next page for answers .....

## Answers

1. The left eye is abnormal. The color of the iris is darkening, while the pupil is smaller in size and irregular in shape compared to the other eye.

2. Iris melanoma (malignant or benign), Iris hyperpigmentation

3. Measurement of the intraocular pressure (IOP), slit-lamp biomicroscopic evaluation of the surface of the iris.



**Figure 2.** A close up photograph of the left eye revealing mottled appearance of the iris. Change in thickness and surface texture was seen via slit-lamp biomicroscopy.

## Comments

(The mean IOP of the right and left eye was 21 and 49 mmHg, respectively.)

Feline (diffuse) iris hyperpigmentation is common. It can be either chronic uveitis inducing iris hyperpigmentation or tumor. History, clinical signs and rate of progression should be reviewed to differentiate the abnormality. Iris tumor is usually presented as focal to diffuse iris hyperpigmentation rather than a discrete nodule or mass. Multiple areas of pigmentation with irregularity of the iris surface or pupil can clinically be diagnosed as the iris melanoma. Monitoring of the pigmented area enlargement is necessary, as well as further investigation of the tumor metastasis. Fine needle aspiration of aqueous humor or sector iridectomy biopsy

of the lesion can be performed to identify cellular malignancy. Secondary glaucoma can occur if the iridocorneal angle is invaded, and enucleation is advised. Appropriate time to enucleate the affected eye is controversy (especially when an eye is still visual), based on the progression of the disease via regular re-evaluation.

## References

- Barnett, K.C. and Crispin, S.M., 1998. Uveal tract. In: Feline Ophthalmology. An Atlas and Text. London: W.B. Saunders 125-126
- Krohne, S. 2002. Ocular tumors of the dog and cat. In: Cancer in dogs and cats. 3<sup>rd</sup>ed W.B. Morrison Philadelphia. Lippincott: Williams & Wilkins 715-718