

BASIC DIAGNOSTIC TECHNIQUES

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SCHIRMER TEAR TEST (STT)

- Measuring the production of the aqueous portion of the precorneal tear film
- Test is performed with sterile strips of absorbent paper with a notch 5 mm from one end. The strip is folded at the notch and hooked over the middle to lateral third of the lower lid for 60 seconds. The distance from the notch to the end of the moist part of the strip is measured. STT results should exceed 15 mm in a minute.

MICROBIOLOGIC SAMPLING

- Ocular tissue samples may be taken for cytologic assessment, culture, polymerase chain reaction or immunofluorescent antibody
- Microbiologic specimens have been collected with a moist swap. Some veterinary ophthalmologists prefer to collect samples by scraping or with a cytologic brush.

PUPILLARY LIGHT REFLEXES (PLR)

- Pupil size, shape and symmetry are assessed for many eye disorders
- The PLR may be decreased or absent if there is iris atrophy, iris ischemia, physical obstruction of the pupil, epinephrine.
- PLR is a subcortical reflex and requires relatively little retinal function.
- The extent and speed of PLR should be assessed and compared in both eyes.
- A positive direct PLR is not a reliable indicator of vision or normal retinal function.

FLUORESCEIN STAINING

- Water soluble dye
- Direct application of the strip or dye to the cornea can cause stain retention when there is a defect in the corneal epithelium
- Corneal epithelium is hydrophobic, but stroma is hydrophilic
- In deeper stromal ulcers both the walls and floor of the ulcer stain
- In descemetocoele, Descemet's membrane will appear black.
- All inflamed or painful eyes should be stained with fluorescein to diagnose for corneal ulcers

Eye examinations according to its structures

Eyelids

- Periocular dermatitis
- Periocular discharge
- Eyelid position
- Palpebral fissure size
- Disorders of the cilia

Third Eyelid

- The position of the third eyelid
- Scrolled third eyelid cartilage
- Foreign bodies
- Changed color: melanosis, hyperemia, anemia
- Masses: third eyelid gland prolapse, tumors
- Irregularities of the margin

Conjunctiva

- Color changing
- Chemosis
- Surface irregularities
- Subconjunctival hemorrhage

Nasolacrimal Apparatus

- Abscess, swelling
- Purulent dermatitis
- Ocular discharge
- Absence of one or both puncta: atresia, fibrosis, foreign body

Cornea

- Loss of transparency
- Change in corneal diameter and contour
- Surface irregularities

Sclera

- Changes in contour
- Changes in color
- Changes in thickness
- Surface irregularities

Iris

- Iridal masses
- Altered pupil shape, color, size
- Iridodonesis

Lens

- Altered size
- Altered shape
- Lens opacity
- Altered position