

Diagnostics of Ocular Diseases

Differential Diagnosis	Diagnostic test		
	Dog	Cat	Cattle
Severe untreatable trauma, such as a perforated or ruptured eyeball	Clinical presentation	Clinical presentation	Clinical presentation
Uncontrollable glaucoma See website: Glaucoma @ Animal Eye Care, for more details	>Tonometry – IOP 10-20 mmHg >Gonioscopy – predisposition for developing cataract in the other eye.	>Tonometry – IOP 10-20 mmHg >Gonioscopy – predisposition for developing cataract in the other eye.	Tonometry
Infections or inflammation on the surface or within the eye that are unresponsive to therapy	>Ocular pressure – if ciliary body is inflamed, fluid production slows down and ocular pressure drops >CBC, Biochemical profile >Culture and sensitivity	>Ocular pressure – if ciliary body is inflamed, fluid production slows down and ocular pressure drops >CBC, Biochemical profile >Culture and sensitivity	Pink eye: >Clinical presentation – tear-staining of the face, pus matting the lashes and hair of the face, conjunctivitis, corneal ulceration and pain when the eye is exposed to direct sunlight. >Culture and sensitivity
Congenital deformities of the eye	>Thorough medical history of bitch >Schirmer tear test >Tonometry >Indirect ophthalmoscope and/or slitlamp biomicroscope >Ultrasound >Angiography – posterior of the eye; visible on X-ray.	>Thorough medical history of queen >Schirmer tear test >Tonometry >Indirect ophthalmoscope and/or slitlamp biomicroscope >Ultrasound >Angiography – posterior of the eye; visible on X-ray.	>Thorough medical history of cow >Schirmer tear test >Tonometry >Indirect ophthalmoscope and/or slitlamp biomicroscope >Ultrasound >Angiography – posterior of the eye; visible on X-ray.
Diseases behind the eye and within the orbit	>Physical examination >CBC, Biochemical profile, urinalysis >Thorough eye exam >Ultrasound >Ultrasound guided aspirate >Culture and sensitivity >CT or MRI	>Physical examination >CBC, Biochemical profile, urinalysis >Thorough eye exam >Ultrasound >Ultrasound guided aspirate >Culture and sensitivity >CT or MRI	>Physical examination >CBC, Biochemical profile, urinalysis >Thorough eye exam >Examination of the mouth including X-ray >Ultrasound >Ultrasound guided aspirate >Culture and

			sensitivity
Diseases within the eye that have the potential to spread to the rest of the body	<ul style="list-style-type: none"> >CBC, Biochemical profile >Culture and sensitivity 	<ul style="list-style-type: none"> >CBC, Biochemical profile >Culture and sensitivity 	<ul style="list-style-type: none"> >CBC, Biochemical profile >Culture and sensitivity
Neoplasia	<ul style="list-style-type: none"> >Physical examination >Skull radiographs (CT and MRI) >Ultrasonography and B-scan ultrasound >Biopsy >Histology – to determine type >Gonioscopy 	<ul style="list-style-type: none"> >Physical examination >Skull radiographs (CT and MRI) >Ultrasonography and B-scan ultrasound >Biopsy >Histology – to determine type >Gonioscopy 	<p>Most common is squamous cell carcinoma</p> <ul style="list-style-type: none"> >Clinical presentation – closure of eyelids, ocular discharge from mechanical irritation of the eye’s surface. >Cytologic examination of impression smears
Abscess within the eye	<p>Retrobulbar abscess:</p> <ul style="list-style-type: none"> >Physical examination >CBC, Biochemical profile, urinalysis >Thorough eye exam >Examination of the mouth including X-ray >Ultrasound >Ultrasound guided aspirate >Culture and sensitivity >CT or MRI 	<p>Retrobulbar abscess:</p> <ul style="list-style-type: none"> >Physical examination >CBC, Biochemical profile, urinalysis >Thorough eye exam >Examination of the mouth including X-ray >Ultrasound >Ultrasound guided aspirate >Culture and sensitivity >CT or MRI 	<p>Retrobulbar abscess:</p> <ul style="list-style-type: none"> >Physical examination >CBC, Biochemical profile, urinalysis >Thorough eye exam >Examination of the mouth including X-ray >Ultrasound >Ultrasound guided aspirate >Culture and sensitivity