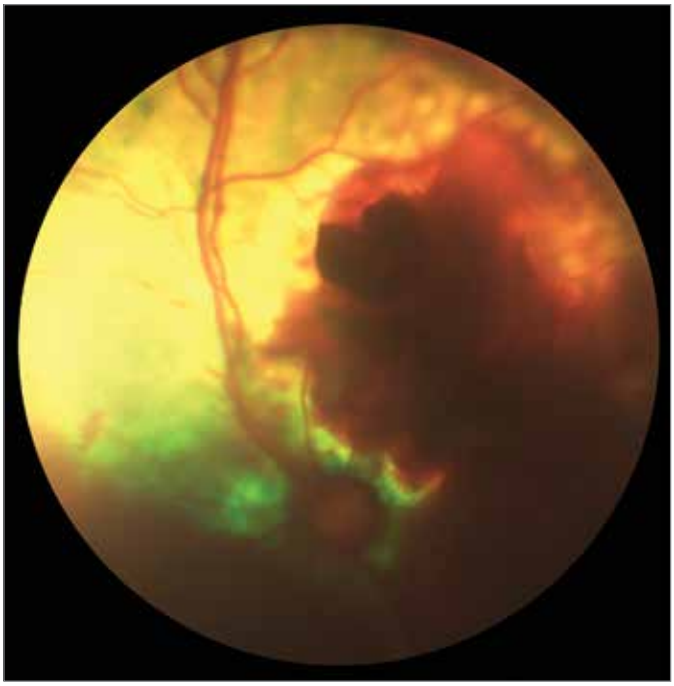
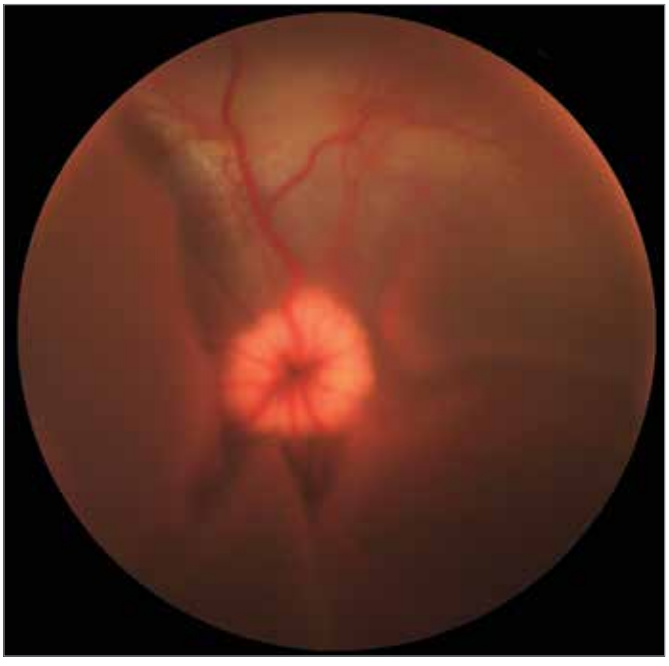


Hypertensive retinopathy



Primary bullous retinal detachment

electroretinographic testing. Attempted treatment of fully extinguished photoreceptor function is fruitless. In rare cases of peracute IMR (associated with a degree of residual visual and/or electroretinographic function), experimental treatment using immunomodulating therapy comprising systemic doxycycline, corticosteroids and/or immunoglobulin therapy has been described.

Ocular changes are often the presenting symptom of **systemic hypertension**. Blood-ocular barrier breakdown results in variable combinations of sub-retinal fluid leakage, retinal hemorrhage &/or detachment, hyphema or visual deficits. Systemic hypertension may be primary or may occur secondary to systemic disease (including renal or cardiovascular dysfunction), endocrinopathy (including hyperthyroidism, hyperadrenocorticism, diabetes mellitus) or neoplasia (including lymphoma, multiple myeloma & phaeochromocytoma). Treatment comprises addressing underlying disease where present. Blood pressure may be directly regulated, typically using amlodipine, and/or an ACE-inhibitor where indicated. Retinal hemorrhage will typically resolve, and retinal detachment may spontaneously re-attach (notably in cats), depending on the chronicity & severity of the pre-exiting detachment. Surgical re-attachment may also be considered in select cases, once underlying pathology has been addressed.

Clinical symptoms potentially associated with **chorioretinitis** (posterior uveitis) may include: chorioretinal edema, exudation, hemorrhage and/or retinal detachment, visual impairment and/or blindness. Potential etiologies include trauma, systemic disease, exposure to infectious organisms, the presence of (local or systemic) neoplasia and/or hereditary factors. Treatment encompasses addressing underlying systemic, infectious or neoplastic disease. Additionally, topical and/or systemic anti-inflammatory therapy is typically warranted.

Primary bullous retinal detachment represents a separation of the neurosensory retina from the underlying pigment epithelium due to sub-retinal fluid accumulation. This process is suspected to be immune-mediated in etiology. Clinical symptoms typically comprise bilaterally dilated poorly, or non-responsive pupils in association with acute onset blindness. Commonly affected breeds include the German Shepherd, Australian Shepherd and Labrador Retriever. Bullous detachments are typically promptly responsive to anti-inflammatory therapy

Rhegmatogenous retinal detachment, represents a separation of the neurosensory retina from the underlying retinal pigment epithelium stemming from a break in the retinal tissue.

Rhegmatogenous detachments may be;

- primary – frequently in association with vitreoretinal degeneration
- secondary – arising as a result of inflammation and/or trauma

Clinical symptoms may include dilated, poorly responsive pupil(s), vitreous degeneration, herniation, and/or hemorrhage visual deficits and/or blindness. Funduscopically retinal tears may visualized. Frequently affected breeds include the Shi Tzu & Bichon Frise'. Medical therapy is unlikely to result in resolution of rhegmatogenous retinal detachment. Where pathology is relatively recent (1-3 weeks) & significant secondary complications have not developed, surgical repair may be indicated. **P**

Dr Esson is a board-certified veterinary ophthalmologist with more than twenty years of clinical experience and multiple areas of interest & expertise. His clinic Veterinary Ophthalmic Consulting (www.veterinaryophthalmicconsulting.com) is family owned & operated and he takes great pride & pleasure in working closely with his friends and colleagues in the greater Southern California veterinary community.