COMMON SMALL ANIMAL RETINAL DISEASES

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The **retinal dysplasias** (RDs) represent a group of inherited retinal diseases, associated with the abnormal differentiation & proliferation of one of more retinal layers. The RDs may involve;

- Multifocal linear folds of tissue (notably affecting the Labrador Retriever, American Cocker Spaniel, Beagle, Rottweiler & Yorkshire Terrier)
- Large irregular or "geographic" areas of tissue (notably affecting the Labrador Retriever, Golden Retriever, English Springer Spaniel & Cavalier King Charles Spaniel)
- Complete dysplasia with or without retinal detachment (notably affecting the Labrador Retriever, Australian Shepherd, Samoyed, Doberman Pincher, Akita & Chow Chow)

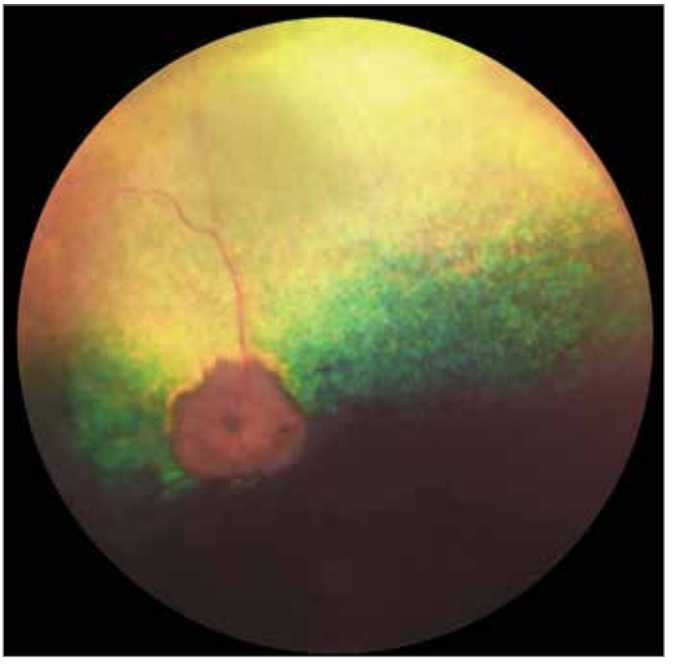
Genetic testing is available for multiple breed-related retinal dysplasias (www.optigen.com). No medical therapy is likely to be beneficial. Surgical management of retinal detachments may be indicated in selected cases. Accurate gene-based testing facilitates breeding programs designed to help reduce the incidence of disease within a breed.

The **retinal atrophies** (RAs) represent a group of inherited retinal diseases, which result in photoreceptor dysfunction and death, leading to visual impairment/blindness. Various forms have been described as affecting a large (and increasing) number of dog breeds as well as some cat breeds. The classification of the retinal atrophies is complex, however may be simplified into;

- early and late onset progressive retinal atrophy (PRA)
- congenital stationary night blindness (CSNB)
- cone degeneration ("day blindness")
- the feline RAs

Genetic testing is also available for multiple breed-related RAs (www.optigen.com).

Sudden acquired retinal degeneration syndrome/ immune-mediated retinitis (SARDs/IMR) describes a spectrum of disease resulting in acute onset blindness, which is generally irreversible. The mechanism of photoreceptor death in SARDs/IMR appears to be antibody-mediated retinopathy. Ophthalmic examination (including funduscopic assessment) is initially unremarkable (although signs of generalized neuroretinal degeneration including tapetal hyper reflectivity and vascular attenuation become evident in the ensuing months). Affected animals are commonly middle-aged, female, small-breed dogs, which may additionally be overweight and/or exhibit symptoms of polyuria/ polydipsia/polyphagia. Intermittent associations have been made with paraneoplastic syndromes, hyperadrenocorticism &/or sex hormone imbalances. The diagnosis if SARDs/IMR supported by



Progressive retinal atrophy (PRA)

Sudden acquired retinal degeneration (SARDS)