

TIBETAN SPANIEL

	DISORDER	INHERITANCE	REFERENCE	BREEDING ADVICE
A.	Entropion	Not defined	1	Breeder option
B.	Distichiasis	Not defined	1	Breeder option
C.	Chronic superficial keratitis/pannus	Not defined	2	Breeder option
D.	Persistent pupillary membranes - iris to iris - all other forms	Not defined Not defined	2, 3 3	Breeder option NO
E.	Cataract	Not defined	1	NO
F.	Retinal atrophy - generalized	Not defined	1, 4, 5	NO
G.	Ceroid Lipofuscinosis	Not defined	6	NO

Descriptions and Comments

A. Entropion

A conformational defect resulting in an "in rolling" of one or more of the eyelids which may cause ocular irritation. It is likely that entropion is influenced by several genes (polygenic), defining the skin and other structures which make up the eyelids, the amount and weight of the skin covering the head and face, the orbital contents, and the conformation of the skull.

B. Distichiasis

Eyelashes abnormally located on the eyelid margin which may cause ocular irritation. Distichiasis may occur at any time. It is difficult to make a strong recommendation with regards to breeding dogs with this entity. The hereditary basis has not been established although it seems probable due to the high incidence in some breeds. Reducing the incidence is a logical goal. When diagnosed, distichiasis should be recorded and breeding discretion is advised.

TIBETAN SPANIEL - 2

C. Chronic superficial keratitis / Pannus

A bilateral disease of the cornea which usually starts as a grayish haze to the ventral or ventrolateral cornea, followed by the formation of a vascularized subepithelial growth that begins to spread toward the central cornea; pigmentation follows the vascularization. If severe, vision impairment occurs. Pannus may be associated with plasma cell infiltration of the nictitans.

D. Persistent pupillary membranes (PPM)

Persistent blood vessel remnants in the anterior chamber of the eye which fail to regress normally in the neonatal period. These strands may bridge from iris to iris, iris to cornea, iris to lens, or from sheets of tissue in the anterior chamber. The last three forms pose the greatest threat to vision and when severe, vision impairment or blindness may occur.

E. Cataract

A partial or complete opacity of the lens and/or its capsule. In cases where cataracts are complete and affect both eyes, blindness results. The prudent approach is to assume cataracts to be hereditary except in cases known to be associated with trauma, other causes of ocular inflammation, specific metabolic diseases, persistent pupillary membrane, persistent hyaloid or nutritional deficiencies. Cataracts may involve the lens completely (diffuse) or in a localized region.

F. Retinal atrophy - generalized

A degenerative disease of the retinal visual cells which progresses to blindness. This abnormality, also known as progressive retinal atrophy or PRA, may be detected by electroretinogram (not part of a routine eye screening examination) before it is apparent clinically. Except for X-linked PRA in the Siberian Husky, in all breeds studied to date, PRA is inherited as an autosomal recessive trait.

G. Ceroid Lipofuscinosis

An inherited disease of man and animal characterized by the accumulation of lipopigment in various tissues of the body including the eye. It results in progressive neurologic disease including blindness. (Also called Batten's disease).

References

1. ACVO Genetics Committee, 1999 and/or Data from CERF All Breeds Report, 1991-1998.
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3. ACVO Genetics Committee, 2005 and/or Data from CERF All-Breeds Report 2003-2004.
4. Bjerkas E, RL Peiffer, Jr. and B Ekesten. Primary glaucoma in the Norwegian elkhound.

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5. Bjerkas E. Progressive retinal atrophy in dogs in Norway. Norsk Veterinaertidsskrift. 1991;103:601-610.
6. Katz ML, K Narfstrom, GS Johnson, et al. Assessment of retinal function and characterization of lysosomal storage body accumulation in the retinas and brains of Tibetan Terriers with ceroid-lipofuscinosis. Am J Vet Res. 2005 Jan;66:67-76.