Abyssinian Cat	 F.Lhonoré/LOOF©

Ocular disorders known or presumed to be inherited (published)

	Diagnosis	Description and comments specific to the breed	Inheritance	Gene/ marker test	References
A	Lacrimal punctum atresia		Unknown	NO	23
B	Keratoconjunctivitis sicca		Unknown	NO	1,2
C	Cataract		Unknown	NO	23
D	Rod-Cone dysplasia Rdy	Early-onset blindness by 7 weeks of age (colony disease)	Autosomal dominant	YES	3-6, 8
E	Retinal degeneration rdAc	Blindness usually occurs at 3-5 years of age	Autosomal recessive	YES	7, 9-22

The ECVO's advice relating to hereditary eye disease control

Please see ECVO Manual chapter 8: VET Advice

Recommendations regarding age and frequency for eye examinations

Pleasesee ECVO Manual chapter 7: ECVO Age and Frequency recommendations

References

1. Kern T. Disorders of the lacrimal system, in Kirk RW (ed): Current Veterinary Theraphy (ed 9). Philadelphia WB Saunders pp 634-641, 1986.

2. Glaze MB. Congenital and hereditary ocular abnormalities in cats. Clin Tech Small Anim Pract; 20(2):74-82, 2005.

3. Barnett K, Curtis R. Autosomal dominant progressive retinal atrophy in Abyssinian cats. The Journal of Heredity; 76: 168-170, 1985.

4. Curtis R et al. An early-onset retinal dystrophy with dominant inheritance in the Abyssinian cat. Investigative Ophthalmology & Visual Science; 28: 131-139, 1987.

5. Leon A, Curtis R. Autosomal dominant rod-cone dystrophy in the Rdy cat: I. Light and electronmicroscopic findings. Experimental Eye Research; 51: 361-381, 1990.

6. Gould DJ, Sargan DR. Autosomal dominant retinal dystrophy (Rdy) in Abyssinian cats: exclusion of PDE6G and ROM1 and likely exclusion of Rhodopsin as candidate genes. Anim Genet;33 (6): 436-40, 2002.

7. Vaegan, Narfström KL. A (max) is the best a-wave measure for classifying Abyssinian cat rod/cone dystrophy. Doc Ophthalmol; 111 (1): 33-8, 2005.

8. Menotti-Raymond M et al. Mutation discovered in a feline model of human congenital retinal blinding disease. Invest Ophthalmol Vis Sci; 51(6): 2852-9, 2010.

9. Narfstrom K. Progressive retinalatrophy in the Abyssiniancat. Clinicalcharacteristics. Investigative Ophthalmology and Visual Sciences, 26 (2): 193-200, 1985.

10. Narfström K et al. Retinal sensitivity in hereditary retinal degeneration in Abyssinian cats: electrophysiological similaritiesbetween man and cat. Brit J of Ophthalmology; 73: 516–521, 1989.

11. Narfstrom K, Nilsson SE. Morphological findings during retinal development and maturation in hereditary rod-cone degeneration in Abyssinian cats. ExpEye Research;49: 611–628, 1989.

12. Jacobson SG et al. Rhodopsin levels and rod-mediated function in Abyssinian cats with hereditary retinal degeneration. Exp Eye Research; 49: 843-852, 1989.
13. Ehinger B et al. Photoreceptor degeneration and loss of immunoreactive GABA in the Abyssinian cat retina. Exp Eye Research, 52, 17-25: 1991.

14. Wiggert B et al. An earlydecrease in interphotoreceptor retinoid-binding protein gene expression in Abyssinian cats homozygous for hereditary rod-cone degeneration. Cell and Tissue Research; 278: 291-298, 1994.

15. Gorin MB et al. Sequence analysis and exclusion of phosducin as the gene for the recessive retinal degeneration of the Abyssiniancat. Biochimica et Biophysica Acta; 1260: 323-327, 1995.

16. Hyman JA et al. Electrophysiologic differentiation of homozygous and heterozygous Abyssinian crossbred cats with late-onset hereditary retinal degeneration. Am J Vet Research; 66: 1914-21, 2005.

17. KangDerwent JJ et al. The electroretinogram components in Abyssinian cats with hereditaryretinal degeneration. Invest Ophthalmol Vis Sci; 47(8): 3673-82, 2006.

18. Menotti-Raymond M et al. Mutation in CEP290 discovered for cat model of human retinal degeneration. J Hered; 98(3): 211-20, 2007.

19. May CA, Narfström K. Choroidal microcirculation in Abyssinian cats with hereditary rod-cone degeneration. Exp Eye Res;86(3): 537-40, 2008.

20. Narfström K et al. Retinal degeneration in the Abyssinian and Somali cat (rdAc): correlation between genotype and phenotype and rdAc allele frequency in two continents.Vet Ophthalmology; 12: 285-291, 2009.

21. Menotti-Raymond M et al. Widespreadretinal degenerative disease mutation (rdAc) discovered among a large number of popular cat breeds. Vet Journal; 186 (1): 32-8, 2010.

22. May CA, Narfström K. Retinal capillary morphology in the Abyssinian cat with hereditary retinal degeneration. ExpEye Res; 99: 45-7, 2012.

23. KatariinaVapalahti, Anna-Maija Virtala, Tara A. Joensuu, KatriinaTiira, JaanaTähtinen, and Hannes Lohi, Health and Behavioral Survey of over 8000 Finnish Cats ; Front VetSci. 2016; 3: 70. Published online 2016 Aug 29.