Laryngeal Dysfunction and Congenital Nuclear Cataract in an Old English Sheepdog: A Case Report

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CLINICAL PRESENTATION

A 1-year-old neutered male Old English Sheepdog was presented to the Veterinary Teaching Hospital of the University of Liège, Belgium, for suspected blindness, mainly in low-light conditions, present since adoption. Visual impairment has also been reported in 5 out of 9 puppies from the same litter.

At 2 years of age, the dog was referred to the Animal CardioPulmonary Consultancy for evaluation of severe exercise intolerance, coughing, noisy breathing, and inspiratory stridor during exertion.

CLINICAL FINDINGS

A complete ophthalmic examination was performed, including slit-lamp biomicroscopy, indirect ophthalmoscopy, and rebound tonometry. The exam revealed bilateral nuclear cataracts with posterior cortical extension. At the 6-month follow-up, the cataracts remained stable.

To investigate the respiratory signs, several complementary tests were conducted by the referring veterinarian, including a complete blood panel (hematology, biochemistry, T4 and TSH levels, troponin), as well as a PCR panel for various infectious agents (canines Distempervirus, Coronavirus, Herpesvirus, Adenovirus, Para-influenzavirus Bordetella spp., Mycoplasma spp.). All results were unremarkable.

After referral, endoscopy and echocardiography were performed. No cardiac abnormalities were identified. Laryngoscopic evaluation showed mild congestion and asymmetry of the vocal folds. During the laryngeal function test under doxapram, only mild abduction of the arytenoid cartilages was noted, with narrowing of the rima glottidis and paradoxical movement.

OUTCOME

Menace response, dazzle reflex, and pupillary light reflexes were present, indicating no functional visual impairment upon examination. No significant progression of the lens opacities was observed over a one-year period. The patient showed no signs of significant respiratory distress. At this stage, surgical management was deferred in favor of regular monitoring. Breeding was discouraged due to potential hereditary implications.

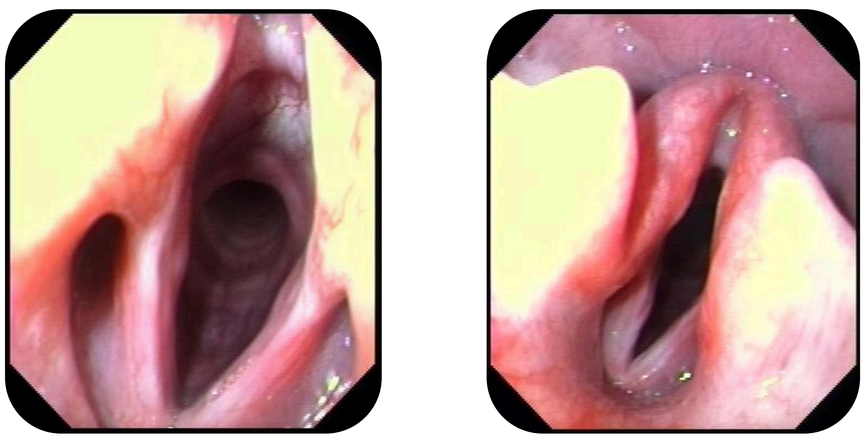


Figure 1 : Larynx showing mild mucosal congestion and asymmetry of the vocal folds

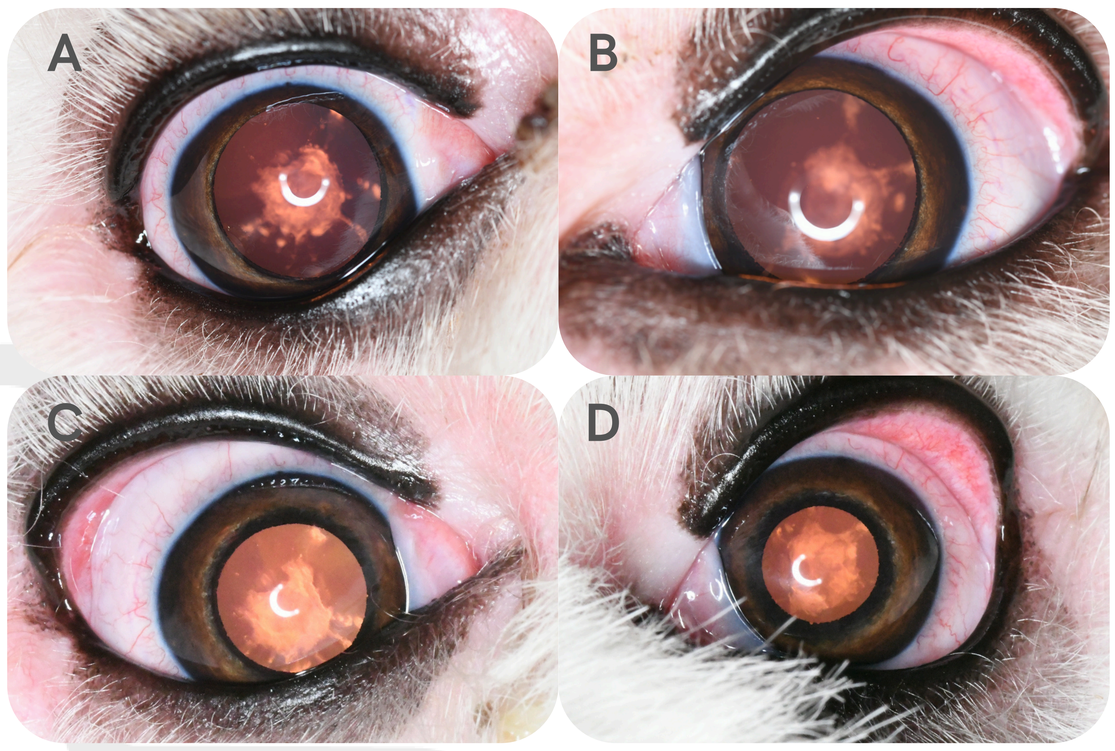


Figure 2 Bilateral nuclear cataract with posterior cortical extension at 1 year (A and B) and at 18 months (C and D)

DISCUSSION

This case highlights a potential association between congenital cataracts and laryngeal dysfunction in an Old English Sheepdog.

A similar combination of clinical signs has been described in other breeds, suggesting a possible hereditary syndrome involving both peripheral nervous and ocular systems. In Rottweilers and Boxers, juvenile cataracts, retinal abnormalities, and laryngeal paralysis have been associated with generalized polyneuropathy and neuronal vacuolation. Likewise, in Alaskan Huskies and Black Russian Terriers, a mutation in the RAB3GAP1 gene has been linked to a syndrome combining congenital ocular defects, polyneuropathy, and central nervous system lesions — closely resembling human Warburg Micro Syndrome.

These parallels support the hypothesis of a syndromic condition involving both ocular and neurologic development. Early neurological and genetic screening should be considered in young dogs presenting with both visual deficits and upper airway abnormalities.

ABSTRACT

REFERENCES