

VETERINARY TECHNICAL DATASHEET

Congenital Hypothyroidism; mutation originally found in Toy Fox and Rat Terrier



Mutation Found In :Fox Terrier (Toy), Rat Terrier

Disorder Type

- Hormonal

Disease Severity

- Moderate

Background

Acquired hypothyroidism is common in middle aged and older dogs. In addition to the acquired form of the disease, congenital hypothyroidism is also encountered in dogs, but is more rare. The clinical signs of the congenital form are very different from those of the acquired form. The tested mutation causes hypothyroidism in Toy Fox Terriers and Rat Terriers and the results from this test cannot be applied to other breeds.

Key Signs

- Slow growth
- Drowsiness
- Disproportionate dwarfism
- Goiter
- Mental impairment
- Abnormal hair coat

Clinical Description

Affected puppies appear normal at birth, with slowed growth usually observed around 3 to 8 weeks of age. Disproportionate dwarfism is typical for affected puppies: they have wide heads, short and thick necks, and short limbs. Affected puppies show mental impairment and their puppy coats are not replaced with the adult coat. Delayed opening of eyes and ear canals and delayed teething may be observed. Goiter (swelling and enlargement of the thyroid gland) is also observed. The disease may lead to death during the first weeks of life due to failure to thrive.

Mode of Inheritance

- autosomal recessive

Gene Name

- TPO

Next Steps

Most clinical signs will improve or be prevented if the condition is recognized early and thyroid replacement therapy is instituted. However, the thyroid glands may continue to expand despite treatment which could lead to airway obstruction.

References

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