CANINE HYPOTHYROIDISM

Epilepsy and Behavioral Disorders in Dogs with Hypothyroidism

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Hypothyroidism in dogs can cause sudden onset of epilepsy, unprovoked aggression, moodiness, depression, hyperactivity, anxiety, and other undesirable behaviors.

Behavioral Changes

Behavioral changes are one of the most undesirable consequences of thyroid dysfunction in dogs. And unfortunately, in North America, the primary reason for pet euthanasia stems from undesirable behavior rather than disease. Often, these changes are related to thyroid dysfunction. Researchers at Tufts University report that 77 percent of the dogs with seizure disorders that they studied had thyroid dysfunction. In addition, the major behavioral changes reported in dogs with thyroid dysfunction included aggression, seizures, fearfulness and hyperactivity with some dogs exhibiting more than one of these behaviors.

Who Is Affected?

Male and Female canines are affected equally. In addition, spayed and non-spayed animals are equally affected. Onset of thyroid disorders tends to peak around the time of puberty. Neutering does not fix the problem and often makes it worse. Thyroid dysfunction is also more common in purebreds than in mixed breeds. Certain breeds, such as boxers, German Shepherds, Collies, Golden Retrievers, English Setters, Labrador Retrievers and Akitas, are also more prone to canine hypothyroidism.

Symptoms and Signs

Both hypothyroid humans and canines have reduced cortisol clearance, which causes elevated levels of circulating cortisol. Elevated cortisol causes a constant state of stress that can result in impaired mental function and irrational reactions characterized more by stress than by reason.

Symptoms of hypothyroidism include major depression, unprovoked aggression, joint pain, sudden onset of seizures, anxiety, phobias, submissiveness, passivity, disorientation, moodiness, erratic temperament, hypo-attentiveness, compulsiveness, and irritability. After the episodes of aberrant behavior, a majority of these canines were reported to behave as if they were coming out of a trance-like state and seemed unaware of their previous behavior. Researchers report that a similar pattern of symptoms occurs in hypothyroidism in horses.

Diagnosis
Because the TSH test is often falsely increased and decreased in canines, it is not recommended as the sole thyroid function test. It is important for dogs suspected of having hypothyroidism to have tests for FT4 and FT3 as well as TSH. Tests for thyroid antibodies should also be performed.

**Treatment**

Treatment for hypothyroidism with twice daily doses of levothyroxine rapidly reversed symptoms with behavioral improvement generally noted within one week. However, a dramatic reversal of behavior with resumption of previous problems has been reported to occur in some cases if only a single dose is missed.

**Seizures in Canines**

Seizures in canines, regardless of the cause, can be aggravated by nutritional deficiencies, particularly deficiencies of amino acids. Dietary sources of high quality animal protein in the least processed forms provide an optimal canine diet.

**Polyglandular Syndromes**

Canines susceptible to autoimmune hypothyroidism may also become more susceptible to other autoimmune disorders. Research shows that canines as well as humans can develop autoimmune polyglandular syndromes. Schmidt’s syndrome is the most common of the polyglandular disorders to occur in canines, and this disorder is most likely to occur in the Standard Poodle, Old English Sheepdog, Bearded Collie, Portuguese Water Dog, Nova Scotia Duck Trolling Retriever and Boxers although any breed can become affected.

**Resources:**


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