
Feline Hyperthyroid Disease and In-Office Blood Testing

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Wellness blood testing has become an integral part of overall health care in many veterinary practices. Early diagnosis of disease extends and improves quality of life. It also improves patient care, client satisfaction, and staff participation in medical cases and is financially profitable.

An often-overlooked aspect of wellness testing is the use of screening for hyperthyroidism in middle aged and older cats. T4 levels can and should be utilized for these patients on an annual basis to screen for hyperthyroid disease. We utilize the T4 test in many aspects of our practice. Screening for feline hyperthyroidism is a major component of our wellness testing.

Feline hyperthyroidism is the most common endocrinopathy of middle aged and older cats, however the disease can occur at any age. The disease causes excessive circulating thyroid hormone concentrations resulting in a multisystemic metabolic disorder. Excessive circulating T4 and T3 result in clinical signs caused by increased basal metabolic rate and the body's inability to meet that rate.

Feline hyperthyroidism is caused by either benign adenomatous hyperplasia or thyroid carcinomas. Carcinomas account for only 1-2% of all cases. Adenomatous hyperplasia is idiopathic. Diagnosis of feline hyperthyroidism in most cats only requires documentation of an elevation of total T4 levels. T3 concentrations are less useful. Other diagnostics are only concerned with the overall health of the animal and the sequela of the hyperthyroidism.

Our wellness program recommendations include a 6-test chemistry panel for young cats, a 6-test chemistry panel, CBC and T4 for middle-aged cats, and a 14-test chemistry panel, CBC and T4 for older cats. Urinalysis is also recommended for older cats. In-office testing provides immediate results for client communication and further diagnostics. The ability to recommend further diagnostics while the patient is in the office greatly improves compliance and negates the need for time-consuming telephone communication and repeat visits, which may never occur.

Cats with high normal or slightly elevated total T4 levels without clinical symptoms are rechecked in 2-3

weeks, due to the possibility of daily fluctuations in T4 levels. A repeat elevated T4 is then considered diagnostic for hyperthyroid disease. Some clinicians may choose to back up this finding with a free T4 level or TRH response test.

A markedly elevated T4 in any cat indicates hyperthyroid disease, especially with a palpable thyroid nodule. These animals are referred for radioactive iodine therapy as our first choice. Other choices include surgery and methimazole treatment.

After therapy, regardless of modality, frequent monitoring is necessary. Animals treated with radiation or surgery, are monitored every 6-12 months for disease reoccurrence or for the need of thyroid replacement therapy. Methimazole treated cats are tested for T4 levels and a CBC every 2-3 weeks during induction therapy. These animals also have T4 levels twice yearly to monitor response to therapy. In-office testing allows for immediate dosage changes and improved client communication.

T4 levels in cats are also run on any cat with clinical symptoms of which thyroid disease is a rule out. These symptoms include weight loss, increased appetite, polyuria/polydipsia or heart disease. Once again, in-office testing utilizing complete blood counts, chemistry panels and T4 levels provides the opportunity for complete diagnostic capability of the ill cat. Results can be discussed with client 10 minutes after the blood is obtained, and treatment and/or further diagnostics can be discussed and instituted immediately.

Instituting a wellness blood testing program that includes T4 will provide your feline patients with better health care. You will find a significant number of animals with subclinical disease, including hyperthyroidism. The benefits you reap, in addition to increased revenue and profit, will be improved diagnostics and medical care for your patients, improved client satisfaction and communication, and improved staff involvement.