FELINE HYPERTHYRORDISM – i131 – CLIENT INFORMATION HANDOUT

What is hyperthyroidism?

Hyperthyroidism is a disorder characterized by overproduction of thyroid hormone, with subsequent increase in metabolic rate. This is a common problem in middle aged to older cats. The thyroid gland may be palpably enlarged, but the disorder is most commonly due to non-malignant cause (hyperplasia or benign adenoma).

What are the clinical signs?

The typical hyperthyroid cat is middle age or older (average age 12 years). The most common finding is weight loss, usually accompanied by an increased appetite. Many cats will drink more water and have a higher urine production. Other common findings include vomiting or diarrhea, a poor hair coat, and some cats may be more hyperactive, kitten like, or more irritable.

What are the complications of hyperthyroidism?

The two most common complications are heart disease (hypertrophic changes secondary to thyroid toxicosis) and hypertension (high blood pressure). Hypertension can lead to strokes and blindness. The liver may also be abnormal, with an increase in size and elevated liver enzymes. Paradoxically, the kidney function may benefit from the hyperthyroid state, and a decrease in kidney function can be seen following resolution of hyperthyroidism.

How is hyperthyroidism diagnosed?

The diagnosis is done with a blood test to measure the thyroid hormone in the serum. Some cats may have clinical signs consistent with hyperthyroidism, and a normal T4 level. These cats may need to be retested, or have other tests done (free T4, thyroid scintigraphy) as the T4 hormone levels can fluctuate during the course of the day.

How does radioactive iodine therapy work?

The radioactive iodine is given by an intramuscular injection, similar to a rabies vaccination. The iodine is absorbed by the hyperfunctioning cells within the thyroid gland, and the radiation, which is extremely focal, causes the death of these cells. The normal adjacent cells which have been suppressed by the hyperfunctioning cells are spared. The excess iodine is excreted in the urine, feces and saliva. The highest excretion is in the first few days; however, some radiation will be present in the urine for up to 2-4 weeks.

What does Tapezole do?

Tapezole prevents the incorporation of iodine into the thyroid hormone, and could interfere with the success of the radioiodine treatment. For that reason, please stop giving tapezole (methimazole) to your cat one week prior to the appointment for radioactive iodine treatment.

Which cats are not good candidates for radioactive iodine treatment?

Any seriously ill cats who cannot eat or drink for themselves will not be treated. Any patients requiring medication more than once a day will not be treated. Any diabetic patients or animals in renal failure (even if stable) will not be treated at OSVS and will be referred to Angell Animal Medical Center for treatment. Very high thyroid levels (greater than 20 micrograms per deciliter) may not be treated if the potential for thyroid carcinoma is high, as a much higher radiation dose is required for effective treatment. Cats who have a malignant cause of hyperthyroidism are referred to Angell Animal Medical Center for further evaluation and treatment.

What is the success rate for radioiodine therapy?

The success rate is approximately 95% with one treatment. Many cats will be transiently hypothyroid (low thyroid level) one-month post treatment and 95% are euthyroid (normal thyroid) three months post treatment. Permanent hypothyroidism is uncommon but may need supplementation after the three month recheck. Recurrence of hyperthyroidism can occur at a later time (2-4 years after the first episode). Finally, those cats who have a malignant cause of the hyperthyroidism require a much higher dose of radioactive iodine, and cannot be treated at OSVS.

What happens once my cat is admitted to OSVS?

All referral bloodwork should be performed within 3 months of the treatment consultation appointment. The medical record and recent bloodwork of the cat is reviewed, and an ultrasound of the abdomen and heart are performed. If these results indicate the cat is stable in his/her disease, and no other problems are seen, the radioactive iodine is ordered, and the cat moved into the isolation ward. The injection is given the following day (Tuesday), and the cat will be held for 7 days (until the following Monday). There is no visitation once the cats have been placed in the radioactive iodine ward. The cats are cared for by Dr. Newell, the radiologist, and Ms. Amy Cardwell, the radiology technician. Phone updates can be obtained through the reception desk, and the cats are released once the radiation level is below reasonable levels - less than 0.5 mR/hr at one meter from the neck.

What happens once my cat comes home?

The specific guidelines for handling the cat will be reviewed by Dr. Newell at the initial consultation visit. In summary, the cat must be kept indoors, with limited human contact, and the soiled litter box contents held for 2 weeks prior to placing in the garbage. A recheck exam with the referring veterinarian at 1 and 3 months' post discharge are recommended, along with analysis of the renal profile and T4 level.

What does it cost?

The total cost to the client is $2800.00. This fee includes the initial examination, radioactive iodine, a bi-cavity ultrasound, hospitalization, and nursing care. Any additional procedures such as x-rays or blood tests are not included. It is requested that prior to referral to OSVS, the following tests be done by the referring veterinarian: CBC, chemistry profile, T4 level and UA if indicated.

***Results of these tests and any recent radiographs will be requested to be sent to us by fax or email from the referring veterinarian. Seven days' worth of food the pet is currently eating at home should be brought at the time of the initial appointment. Any personal items placed with the cat during treatment will not be returned after discharge from the hospital. ***