



Dr. Cecilia Ho, DVM

Dr. Cecilia Ho is a graduate of the College of Veterinary Medicine at Michigan State University. She decided to specialize in feline medicine two years into private practice as she found feline medicine to be more challenging and rewarding. She currently shares her home with several cats- all of which have her trained to their beck and call.

HYPERTHYROIDISM IN CATS

Hyperthyroidism is a condition where the thyroid gland enlarges and begins producing too much thyroid hormone. The gland can enlarge either by increasing the size of its individual cells or by increasing the number of cells within the gland. Most enlarged glands end up being benign in nature. However, there is a small percentage of these enlarged glands that end up being malignant. Hyperthyroidism is a metabolic disease of older cats, usually cats that are older than 10. Because the thyroid gland helps control the metabolism of the body, most of the clinical signs seen are related to an increased metabolic rate in the body. The most common presentation of a hyperthyroid cat is one where the cat presents for a weight loss problem despite having a very good appetite. Another common symptom is vomiting, followed by diarrhea. These cats are usually very active and seem to revert to a second “kittenhood” again in their play behavior. Some hyperthyroid cats can also present with excessive lethargy, although this symptom is not as common. Some clients will also notice that their hyperthyroid cats seem to have very elevated heart rates. This is because the higher thyroid levels push the heart to work harder and to beat faster. In severe cases, some hyperthyroid cats will develop secondary congestive heart problems which do not resolve even after the hyperthyroid condition has been addressed.

Diagnosis can be done with a simple blood test that checks the level of thyroid hormone within the cat's body. In some cats, it is also possible to palpate the enlarged thyroid gland. The gland is situated near the middle of the throat and when enlarged will feel like a large pea when palpated. Some doctors call this the “thyroid slip”. However, there are some cats that will be hyperthyroid without concurrent enlargement of the thyroid gland. These cats are believed to have extra thyroid tissue located alongside the trachea making it difficult to palpate as it enters the chest cavity. In these cases, the bloodwork result would confirm the presence of hyperthyroidism.

Once the diagnosis is made, treatment can be started. Failure to treat will ultimately lead to death as the hyperthyroid state causes massive metabolic derangements which finally lead to organ failure such as myocardial failure.

There are several treatment options and they are listed as follows:

Methimazole tablets: This medication helps control the amount of thyroid hormone that is being produced by the thyroid gland. Most cats tolerate this medication well and cats can stay on this medication long term. This medication can also be compounded into a transdermal ointment which is then applied to the skin on the inside surface of the ear.

Pros: Medication is relatively inexpensive and it's easily given. It can be crushed and mixed with canned food. Cats also tolerate this medication well.

Cons: The medication will not stop the thyroid gland from growing and the

dosage will have to be adjusted multiple times as long as the cat stays on the medication. This requires the cat to have its thyroid levels checked by doing blood work every 4 to 5 months. Some cats will not tolerate this medication and will either vomit or develop a severe facial rash. It can also cause bone marrow suppression and or liver disease in certain cats.

Thyroidectomy: This is surgery to remove the affected, enlarged thyroid glands. This procedure can be very effective in resolving the hyperthyroid condition if only the 2 accessible thyroid glands are involved.

Pros: Removing the affected glands is curative. Cats do well if no additional complications arise from the surgery.

Cons: Cost of the surgery can be expensive. There may also be additional thyroid glandular tissue hiding in the chest cavity that may be missed during surgery. Risk of complications from the surgery can be high.

Y/D diet: This is a prescription diet that is formulated specifically for hyperthyroid cats. It is very restricted in iodine which helps lower the thyroid hormone levels of cats that eat this diet.

Pros: This is an easy fix without having to resort to medications or surgery.

Cons: This is an expensive prescription diet. Some cats may not like it and refuse to eat it. In multicat households, feeding the Y/D diet means having to supplement the diet of the normal, healthy cats with regular cat food that contain normal levels of iodine while trying to keep the hyperthyroid cat away from the regular cat food. This translates into a hassle for most owners. Unfortunately, the diet is also just a temporary fix and the cat will have to undergo further treatments in the future once the thyroid gland has outgrown the suppressing effects of the diet.

Radioiodide treatment: This is the gold standard for hyperthyroidism and is how most hyperthyroid human patients are treated. The treatment for cats consists of a single injection of radioactive iodine subcutaneously. The radioactive iodine is then taken up by the thyroid gland to be used to produce more thyroid hormone. The radioactive iodine then kills all the abnormal, overactive thyroid cells while sparing the normal, quiescent cells.

Pros: One injection is curative for the life of most cats. There is a small percentage of cats that may need a second injection but that is rare. If the thyroid gland is cancerous, this injection is also curative since it's radioactive. There are no side effects from the injection and it's very well tolerated by cats.

Cons: The most prohibitive reason against this treatment option is the cost. Treatment prices range from \$1250 - \$1600. The reasons for the high cost of treatment include the cost of purchasing the radioactive iodine and housing the treated cats in a special facility as the cats are now radioactive. Urine and feces remain radioactive for several weeks and have to be disposed of separately in accordance with state health regulations. Most cats are hospitalized for about 3-4 days post-injection where they have to be monitored for any adverse reactions to the injection. Finally, this may not be the best treatment option for a feline patient that is showing early signs of kidney disease. If these cats undergo the radioiodide treatment, the drastic lowering of the thyroid hormone levels may cause the cat to develop overt kidney failure.

If you suspect that your cat may be showing symptoms of hyperthyroidism, it is best to have it examined by your veterinarian. Once a diagnosis is made you can discuss the different treatment options with your veterinarian and arrive at one that best fits your cat's medical needs.

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