



## An introduction to Radioiodine Therapy at VICSD

At VICSD, the accurate diagnosis and radioiodine treatment of feline hyperthyroidism is our specialty. We put every effort into making the radioiodine experience a comfortable one for both the patient and the animal owner.

- Our experience in imaging and treating cats with hyperthyroidism ensures that only cats that require treatment and who can safely undergo therapy are selected for treatment.
- Advanced imaging is performed in all cases prior to treatment to ensure proper case selection
- Iodine Cat Web cams are available for animal owners to monitor their pets during treatment
- Daily progress reports are made by phone to the pet owner
- A free baseline echocardiogram is performed in all cases prior to treatment
- Window access to the lobby is provided so animal owners can visit their pets.
- Soft background music is played in the treatment room.

The following is an introduction to feline hyperthyroidism and radioiodine therapy. A full discussion of feline hyperthyroidism, treatment options, and frequently asked questions for pet owners is available for download as well.

### **An Introduction to Feline Hyperthyroidism and Radioiodine therapy**

The cause of feline hyperthyroidism is a tumor (97% are benign) that secretes too much thyroid hormone. The excess thyroid hormone functions to overstimulate your cats metabolic systems. Common symptoms of feline hyperthyroidism can include weight loss, increased appetite, vomiting, diarrhea, changes in the hair coat, or hair loss, increased heart rate, heart murmur, anxiety, increased vocalization and increased water intake and urination.



### **Pretreatment imaging:**

It is our firm belief that all cats should undergo extensive screening prior to radioiodine therapy. Although the radioiodine treatment is painless and complications are rare, poor case selection prior to treatment may result in a poor outcome.

Many cats with hyperthyroidism will have concurrent renal disease. Treating cats with hidden renal disease may unmask renal failure. Therefore, we screen all cats for renal disease and require a Tapazole trial prior to treatment to screen out patients that will be prone to developing renal disease after therapy. Additionally, we can perform a nuclear scintigraphy (GFR) to further evaluate renal function if necessary.

All cats will also receive a baseline echocardiogram prior to treatment. Because heart disease is commonly associated with hyperthyroidism, a baseline echocardiogram is performed to exclude patients with severe heart disease. A baseline echocardiogram will also enable us to monitor your cats heart after therapy. We believe in early therapy for heart disease that does not improve after radioiodine therapy.

There are a small number of cases of feline hyperthyroidism that will not respond to low dose radioiodine treatment. These cases of hyperthyroidism are caused by an aggressive tumor (carcinoma) of the thyroid gland. A pretreatment nuclear medicine procedure (thyroid scan) is performed in all patients to screen out cases of feline hyperthyroidism caused by a carcinoma.

As you can see, pretreatment imaging is essential to selecting only the cases where radioiodine therapy is safe, uncomplicated, and in which the patient will clearly benefit from radioiodine therapy.

### **Hyperthyroidism Treatment Options :**

There are three accepted treatment options for feline hyperthyroidism. Animal owners should carefully evaluate each of these options before deciding on a course of therapy. These three treatment options are medical management using anti-thyroid pills (Tapazole), surgical removal of the thyroid gland(s), and radioactive iodine (I-131).



- **Antithyroid pills (Tapazole)** : Oral anti-thyroid medications act to decrease the circulating level of thyroid hormone. These oral medications do not cure hyperthyroidism and must be administered sometimes up to three times daily for the remainder of your pets life. Many cats will not tolerate these daily medications. Additionally, careful monitoring of your patients health during treatment with Tapazole will also be necessary because Tapazole toxicity is not uncommon. Tapazole toxicity may result in vomiting, diarrhea, and altered white blood cell values.
- **Surgery** : Surgical removal of the thyroid gland (thyroidectomy) is another treatment option. Unlike medical treatment with Tapazole, surgical removal of the thyroid gland will cure the hyperthyroid state. Unfortunately, as with any surgery, surgery is stressful and complications are possible. The most common surgical complications are damage to the parathyroid glands and incomplete surgical excision of the abnormal thyroid tissue. Considering the expense and possible complications of surgery, and the availability of safer treatment options, many veterinarians are not recommending surgery for treatment of hyperthyroidism at this time.
- **Radioiodine (I-131) Therapy** :Radioactive iodine is considered by most veterinarians to be most effective treatment for hyperthyroidism with the fewest complications of all of the available treatment options. The overall success rate of radioiodine therapy is very high and there is no risk of anesthetic or surgical complications.

Radioiodine therapy is performed by injecting a small volume of radioactive iodine into your cats bloodstream. Radioactive iodine is used because it localizes in the thyroid gland so there is no damage to other organs in the body. This focal uptake of the radioactive iodine means that only abnormal thyroid tissue will be treated with the radioactive iodine. The functioning normal thyroid gland is spared which reduces complications after treatment.

The only limitations of radioactive iodine therapy are that cats receiving radioactive iodine must be hospitalized for about one week (to comply with California state regulations to protect you and your family); and rarely some cats will require a second treatment or become hypothyroid.



### **What to expect during hospitalization at VICSD :**

During hospitalization at VICSD, your pet will be housed in our newly remodeled treatment facility. Our hospital was designed around our hyperthyroidism treatment area so animal owners are able to come and visit their pets through a large viewing window that opens to our lobby. Additionally, owners are able to monitor their pet during their stay via web-cam to each of our treatment cages.

Each day, animal owners will receive daily updates from our technical staff about the status of their pets.

### **What you should expect after treatment at VICSD?**

When your cat returns home, they will slowly start to return to their pre-hyperthyroid state. If they lost weight as a result of being hyperthyroid, it may take a while for them to return to their original weight. If at any time, after treatment, you are concerned about your cat, please contact us. We will work closely with your veterinarian and follow your cat's status post treatment. To better evaluate your cat, you will be asked to have your cat's blood-work checked at 1, 3, 6, and 12 months after treatment. You will also receive a follow up survey letter from us after your cat has completed the treatment program. Your answers to our survey will help us provide the best hyperthyroid treatment program possible.

We are concerned with not only your cat's safety, but with yours as well. Because we know your cat is a member of your family and you will want them as close to you as possible once they are home, we take precautions to make sure your cat is safe to be released to you. This focus on your safety may require that your cat stay with us for a longer period of time than other centers advertise.