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Treatment of Feline Hyperthyroidism

There are several options for treatment of feline hyperthyroidism. Below we have described both cures and management options for the condition. Our veterinarian will be able to discuss the treatment that is most suitable for you and your cat.

Radioactive Iodine (I-131)

The gold standard treatment for hyperthyroidism is an injection of radioactive iodine. This usually cures the condition, and re-treatment is rarely needed. Some cats may require hormone supplementation after the injection. Radioactive iodine injections also carry less risk than surgery and anesthesia and are considered to be the safest treatment method.

Radioactive iodine therapy involves a nuclear medicine scan to show the location and size of the cat's thyroid glands and confirm the hyperthyroidism diagnosis. This scan can also identify malignant tumors. After the scan, the radioactive iodine is injected to destroy abnormal thyroid tissue. Only the thyroid is affected by the iodine's radioactivity. Three to four days of hospitalization may be required until the radioactive iodine reaches appropriately low levels.

Advantages

- Less than five percent of cats require a second treatment with this method, and ongoing therapy is not needed.
- Radioactive iodine is a cure for hyperthyroidism and does more than just manage symptoms.
- This method does not involve the risks associated with anesthesia and surgery, and is much less stressful for cats with heart disease.
- Radioactive iodine therapy can detect if your cat has a malignant tumor that is affecting the thyroid gland.

Disadvantages

- Your pet must be isolated during hospitalization and is separated from you. Children and pregnant women cannot be in contact with your cat for at least one week after therapy.
- This therapy is relatively expensive, and you must purchase special flushable cat litter for one to two weeks after therapy.
- Follow-up blood testing is typically recommended after treatment.
- There is a small chance (<5%) that your cat may become hypothyroid after treatment and need daily thyroid hormone supplementation.
- This may not be a suitable option for cats with poor kidney function. All cats should be screened for kidney failure before choosing this therapy.

Surgery

Surgery to remove the thyroid gland can sometimes cure the disease, but more than one operation is usually required. This may not be indicated in cats with heart issues because of increased sensitivity to anesthesia.

Medication

Medications like methimazole may be used to control hyperthyroidism. These medications reduce circulating levels of the T4 hormone. If medications are used, your cat's blood level of T4 should be checked every 10 to 14 days until it falls within an acceptable range.

Hyperthyroid medications slow or stop the thyroid's production of T4 and T3 hormones. Any thyroid hormone that was already circulating in the blood at the beginning of treatment will continue to exert effects for two to four weeks. It is important to note that the thyroid gland will not reduce in size during treatment with methimazole, and it is possible that it will become even larger. In situations where an oral form of medication is inappropriate, a transdermal methimazole gel may be applied to the inner ear.

Side effects may occur with medication use. Approximately 15% of cats experience side effects; these can be reversed by decreasing dosage amounts or discontinuing use of the medication. Facial itching is one of the more serious side effects that has been noted with methimazole and may be resolved with an anti-itch medication or by discontinuing methimazole. If itching occurs, another form of treatment should be used. This side effect occurs in less than four percent of cats using methimazole. There is a less than four percent chance that cats on methimazole may experience liver failure or bone marrow changes. Both conditions may resolve by discontinuing methimazole therapy. Most side effects will occur within the first month of medication therapy.

Advantages

- Medication is relatively inexpensive when compared to radiotherapy or surgery.
- Treatment can be discontinued if a cat shows signs of poor kidney function.
- Side effects are uncommon.
- No hospitalization is needed.

Disadvantages

- Medication must be given daily. Some cats will refuse to take oral tablets this frequently.
- Side effects include itching, lethargy, loss of appetite and vomiting. If side effects occur, medication is usually discontinued until symptoms improve and then started again at a lower dose.

Diet

A low-iodine diet may reduce your cat's T4 levels. Iodine is necessary for the synthesis of thyroid hormones, and reducing intake of iodine may reduce thyroid hormone production. A low-iodine diet may be tried on its own, or may be used in conjunction with other forms of treatment. If your cat is on a low-iodine diet, it is important that you do not give it any other food, treats or supplements that could contain iodine.

Co-existing Conditions

Pre-existing kidney insufficiency is masked by hyperthyroidism because of increased blood flow to the kidneys, which improves their insufficiency. Once treatment for hyperthyroidism begins, blood flow to the kidneys will return to normal rate and kidney function will deteriorate. It is important to monitor kidney function, especially during

methimazole therapy, because sometimes owners will need to decide between treating the kidneys and treating the thyroid.

Hypertension may be treated with a medication called amlodipine, which lowers blood pressure. Treatment of kidney or heart diseases are individualized. Consult with our veterinarian for further information.

Monitoring

If your cat receives radioactive iodine or surgery as treatment, monitoring should not be needed as often because the hyperthyroidism has been cured. With other forms of treatment, it is possible that the tumor will continue to grow and affect your cat's T4 levels. Thyroid hormone levels should be measured continually in order to determine any needed changes in medication dosage. If the tumor continues to grow, kidney enzymes and T4 levels should both be monitored. Drug therapy may cause liver or bone marrow toxicity, although this is rare. It is recommended that your cat's liver enzymes and blood cell count are included in monitoring evaluations to prevent these side effects. These tests should also be done after radioactive iodine treatment or surgery to determine if your cat needs thyroid supplements and evaluate kidney function.

If you have further questions or concerns, please do not hesitate to contact us!

Sources:

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