

## **FELINE HYPERTHYROIDISM**

Providing owners with information on:

- Effects of hyperthyroidism.
- Management of the condition.
- Costs of the different treatments.

## **THE THYROID GLANDS AND THEIR FUNCTION**

The thyroid glands secrete the hormone Thyroxin (T4) which travels around the body in the blood. Thyroxin affects almost all the organs in the body to help regulate normal functioning particularly of the heart, blood pressure, the gut and mental activity. Abnormally high levels of Thyroxin affect all these body systems resulting in a number of changes which, if left untreated, will eventually be fatal. There are two thyroid glands which lie in the neck just below the larynx next to the trachea and there are also sometimes small areas of thyroid tissue within the chest cavity

## **HYPERTHYROIDISM**

Hyperthyroidism is a condition where the thyroid gland secretes excessive amounts of the hormone thyroxin; this is due to abnormal growth (tumour) of the gland tissue. Most commonly in cats the tumour is benign so although it will continue to grow it will not mutate or spread elsewhere in the body. However malignant thyroid tumours do occur and these can spread and are much harder to treat.

Hyperthyroidism is the most common hormone disease in cats but the trigger cause currently remains unknown.

Cats affected by hyperthyroidism tend to be mid-old age (usually over 10 years old), and show a gradual and progressive onset of the disease over a number of months.

The common signs are gradual weight loss often despite an increased appetite although decreased appetite can also occur! Cats may also have an elevated heart rate, show an increase in drinking, urinating and altered faecal volume and consistency.

Hyperthyroidism can often mask other problems that then only become apparent after starting treatment.

Because thyroid hormone has such wide-ranging effects in the body it is important to remember that this list of problems is by no means absolute and if you are ever concerned about your pet it is always worth seeking veterinary advice.

## **DIAGNOSIS**

If the vet is suspicious of hyperthyroidism they will probably recommend a blood sample that tests for the thyroid hormone thyroxin (T4) in the blood; raised levels are usually enough to diagnose the disease.

## **TREATMENT**

Once a cat has been diagnosed with hyperthyroidism they are normally started on a course of tablets which reduces the release of thyroid hormone. The effects of this are usually quite rapid although the drug takes a few weeks to reach consistent levels within the body. Occasionally there are some mild side effects; you should always contact your vet if this occurs.

After a few weeks of treatment a repeat blood sample is normally taken; this allows the vet to monitor the effect of the treatment and also check for other underlying diseases. These diseases may previously have been present but have been masked by the activity of excess thyroid hormone.

Once the cat has a normal, stable level of thyroid hormone there are three options for treatment of the condition:

## 1: MEDICAL MANAGEMENT

Medical treatment requires administration of medication for life, usually one tablet twice daily and whilst it controls the condition it is not a cure. Progression can occur so regular blood monitoring is required and possibly adjustments to the drug dose used. Side effects are rare, often resolve after a short period and are easily reversible.

When considering this option it is also important to remember the need for regular twice daily tablet administration, and the cat's expected life as treating and monitoring the condition for a number of years may become very expensive over time.

## 2: SURGERY

This can be done once the cat is stabilised—usually about 3 weeks after diagnosis and initial treatment.

Surgery is curative in the majority of cases. It usually involves removal of both thyroid glands and tumour tissue and an overnight stay at the practice. In some cases only one gland is removed, in which case the second is often removed at a later date.

Any surgery carries a small anaesthetic and surgical risk, this particular operation is very delicate and in some cases there is un-avoidable damage to the parathyroid gland which sits on the thyroid gland. The parathyroid gland helps to regulate calcium levels in the blood; its removal can cause a dangerous hypocalcaemia (low blood calcium) but is usually easy to treat and in general returns to normal over time.

## 3: RADIOTHERAPY



This is also normally only attempted once the hyperthyroid cat is stabilised.

A single treatment is curative in the majority of cases and involves an injection with radio-active iodine. This targets the tumour tissue and destroys it, while leaving the normal healthy gland.

Although quite simple this treatment requires a stay of 3-6 weeks at one of just 4 specialist centres in the UK whilst the level of radio-activity returns to normal.

Side effects are rare and can be treated quite simply.

## COSTS OF TREATMENT

The initial period of diagnosis and stabilisation applies to all of the treatment options, after that the costs are quite variable so please only use the figures below as rough guide-lines:

MEDICAL MANAGEMENT ~£350 per year based on an average dose given twice daily and 6 monthly check-up and blood test.

SURGERY ~£350-450