

Hyperthyroidism in cats

Hyperthyroidism is very common. This hospital diagnoses two or three new cases every week!

The two thyroid glands are located in the neck on each side of the windpipe. They produce thyroid hormones that affect many organ systems in the body. Simplistically, they can be thought of as controlling the body's metabolic rate. Hyperthyroidism occurs when a non-cancerous tumour (adenoma) of one or both glands causes overproduction of these hormones. The excess hormone level affects many organ systems in the body.

Symptoms

Hyperthyroidism occurs only in cats over eight years old. Typical signs are weight loss and increased appetite. Other signs that may or may not be seen are hyperactivity (cat more active than expected for its age), poor coat condition, increased drinking, vomiting and diarrhoea. Some cats become lethargic and go off their food.

Hyperthyroidism can cause increased blood pressure (hypertension), which itself has many dangerous effects on the body's organs. Occasionally, cats suddenly go blind because the blood pressure is so high it 'blows' the retinas off the back of the eyes.

Hyperthyroidism also causes a rapid heart rate. Because of the rapid heart rate, the heart muscles are doing more work, and so get thicker and thicker – just like any other muscle that works hard. This is called hypertrophic cardiomyopathy (HCM). The thickening of the muscles in the heart chamber (ventricle) walls happens at the expense of chamber volume, as a result of which the ventricles cannot fill up with the same volume of blood. Less blood in means less blood out for each beat of the heart, and so reduced blood supply to the body. This eventually leads to heart failure – seen as rapid heart rate, lethargy, shortness of breath and panting.

Diagnosis

A simple blood test can confirm the vast majority of cases. Occasionally a second blood test may be required to be certain.

Prognosis for untreated cases

Hyperthyroidism is a life-long condition, it will not get better on its own. Left untreated, hyperthyroid cats become more and more ill, and run the risk of high blood pressure and heart failure.

Treatment

Treatment is very effective. Initially, tablets (Videlta) are given twice a day for two weeks, at which time thyroid function and kidney function are re-assessed. Kidney function is re-assessed at this time because in some cats the high blood pressure caused by hyperthyroidism effectively masks pre-existing kidney failure.

Blood pressure and heart status should also be assessed and, if necessary, corrected with further medication. Blood pressure usually rapidly returns to normal on correction of hyperthyroidism. The heart changes also usually reverse when the hyperthyroidism is treated, although this takes some months.

After the initial two-week period, there are three choices of further treatment, each effective but with their own pros and cons:

- **Surgical removal of the affected thyroids**

This is the treatment we recommend for most hyperthyroid cats.

Pros: • Cures the disease, so no further treatment needed.

Cons: • Not suitable if severe heart or kidney disease.

- A general anaesthetic is needed.

- The cost of the operation.

- If only one thyroid is affected, and so only that one removed, there is a possibility that the other gland may become affected years later.

- If both thyroids are affected, there is a risk that your cat may become temporarily hypocalcaemic (low blood calcium) after the operation. This would require several days of hospitalisation, and medication for a few weeks.

- **Continue with tablets for life**

This is the best option for cats with severe heart problems or with kidney disease. It is also likely to be best for very old cats.

Pros: • No operation needed.

Cons: • You need to give tablets daily (typically once daily) for life.

This is not easy for some cats!

- Over the longer term (>1-2 years) it is more expensive than the operation to remove the thyroid gland(s)

- The hyperthyroidism is not cured, only managed. Whereas any management is much better for your cat than no treatment, the effectiveness of the management is improved by regular veterinary checks and blood test.

- **Treatment by injection with radioactive iodine**

Pros: • Cures the disease without surgery.

Cons: • More expensive than surgery or tablets.

- Requires several weeks of hospitalisation at a specialist centre.