# Bird & Exotics Veterinarian

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# ADRENAL GLAND DISEASE IN FERRETS

# 1. What are adrenal glands?

The adrenal glands are hormone-producing glands located next to the kidneys. They produce the hormone cortisone as well as small quantities of the sex hormones estradiol, 17-hydroxyprogesterone and androstenedione.

# 2. What is adrenal gland disease?

Adrenal gland disease is one of the most common diseases in ferrets, particularly affecting middle-aged to older ferrets. An increase in size of the adrenal gland (hypertrophy), benign adrenal tumors (adenoma) or malignant adrenal cancers (adenocarcinoma) lead to an increased release of the sex hormones.

Adrenal gland disease is not the same condition as Cushing's Disease (hyperadrenocorticism) in dogs.

#### 3. What is the cause of adrenal gland disease?

The underlying cause is unknown but may be related to early desexing, genetics and husbandry issues.

#### 4. What are the signs of adrenal gland disease?

There is progressive hair loss, usually starting on the tail, typically beginning in late winter or early spring. The hair may regrow during autumn. This pattern generally follows for a period of 2-3 years until the hair fails to regrow. Pruitis (itching) may accompany hair loss. The ferret may lose weight and become less active. An enlarged vulva may occur in desexed females (similar to the signs of a ferret in season). In males a swollen prostate may lead to difficulty in urinating.

# 5. How is adrenal gland disease diagnosed?

A tentative diagnosis is based on the history and clinical signs. Treatment trials are often useful. Adrenal hormone levels and ultrasound may also be useful.

Additional tests such as skin scrapings and blood tests (biochemistry) may be necessary to rule out other diseases.

In some ferrets, there may also be concurrent pancreatic disease from *insulinoma*.

#### 6. What treatment is available for adrenal gland disease?

The disease is manageable but not generally curable. Depending on the age, condition of the ferret and the severity of the disease, it can be controlled medically by GnRH agonists. This is usually in the form of an implant (Suprelorin) surgically administered under gaseous sedation every 4-6 months or as monthly injections (Leuprolide). Surgery to remove the affected gland is possible however there is a higher chance of complications and a poorer long term outcome.

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