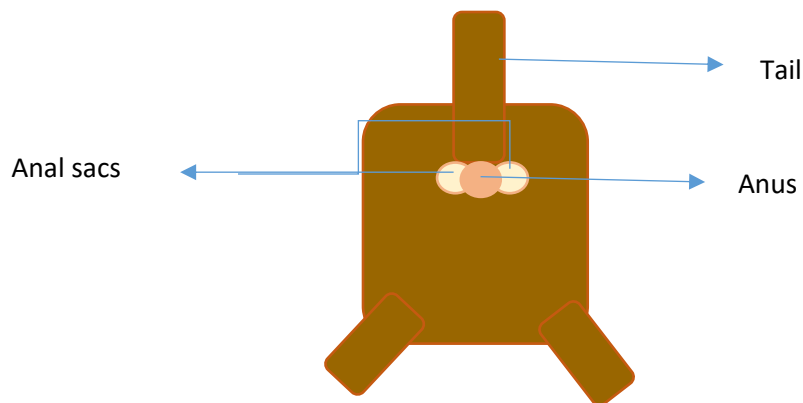


Anal Sac Adenocarcinoma

What is anal sac adenocarcinoma?

Anal glands sit just inside the anus and produce a (often strong smelling) secretion which is emptied onto the faeces as the dog or cat defecates.



Anal sac adenocarcinoma is a tumour which develops from the lining cells of these glands. They account for approximately 2% of canine skin tumours. This tumour can be metastatic, which means it can spread to other locations (malignancy).

It most commonly spreads to the local lymph nodes (glands) which sit in the abdomen, just below the spine and in front of the pelvic bone. Anal sac adenocarcinoma can also spread into other tissues, most commonly the spleen, liver, and lungs.

It can also be associated with high blood calcium levels (hypercalcaemia) as the tumour cells can produce a hormone which causes release of calcium from the bones. This occurs in 16% to 53% of cases.

Signs and symptoms of anal sac adenocarcinoma

Some of the signs and symptoms of anal sac tumours in animals include:

- A lump or mass close to the anus that may bleed or cause irritation.
- Straining to defecate with altered faeces shape e.g. flattened faeces rather than rounded.
- Increase thirst, drinking and urination due to hypercalcaemia, and possibly reduction in appetite.

Diagnosis

When a mass is found, your vet might suggest that a fine needle aspirate (where a needle is inserted into the mass and cells taken out) or surgical biopsy is performed to define the origin of the mass better.

Testing may include blood samples for haematology (to look at red and white blood cells) and biochemistry (looking at organ function, blood calcium and other parameters).

Further diagnostic imaging may be performed to assess the tumour and search for any spread, which could include computed tomography (CT) or x-rays of the chest, x-rays or ultrasound of the abdomen.

What are the treatment options?

Treatment options for anal sac adenocarcinoma are tailored to the individual patient and centred around maintaining a good quality of life. This could include a combination of treatment options such as surgery alone, surgery and chemotherapy, palliative radiotherapy, chemotherapy alone or palliative care.

The aims of treatment include:

- **Controlling the level of blood calcium if high (medically).** This may be achieved through fluid therapy or medication and can be done prior to surgery, although ultimately removal of the tumour will often normalise the calcium levels.
- **Controlling the primary (original) tumour.** This involves surgery to remove the affected anal gland and the tumour. This will reduce the tumour burden and reduce side effects of the original tumour such as irritation of the area and difficulty defecating. This may need to be followed up by chemotherapy and/or radiotherapy. Chemotherapy can sometimes also be used to reduce the tumour size prior to surgery and to reduce the risk of post-operative complications.
- **Controlling local spread to the lymph nodes (by surgically removing them).** If the disease has been shown to spread only to the local lymph nodes (glands) then these can be removed surgically through an abdominal approach. Radiotherapy or chemotherapy might be advised after surgery.
- **Preventing or delaying disease progression if surgery is not performed or after surgery.** Chemotherapy can be continued after surgery (once the surgical site is healed) to delay any remaining cancer cells from forming tumours. If surgery is not possible or the cancer has spread to multiple sites, then chemotherapy can be useful in controlling/stabilising the disease and trying to reduce tumour size.

We may recommend repeating imaging such as a CT or abdominal ultrasound after surgery or finishing chemotherapy to detect disease reoccurrence as early as possible.

What is the prognosis?

As anal sac adenocarcinoma tumours can spread, many animals are unable to be cured but their quality of life can be improved for long periods of time. The average life expectancy following appropriate therapy (such as surgery, chemotherapy, radiation therapy) is highly variable (between 12-30 months) and is affected by size of the tumour, if it has spread, the growth rate and other concurrent factors like high blood calcium levels.