

## Anal sac surgery

### Indications & symptoms:

The anal sacs in dogs can get several diseases that might need surgical treatment. This includes:

- cancer (anal gland anal sac adeno carcinoma – AGASACA)
- impaction (recurrent issues with anal sac impaction)
- rupture/abscessation of the anal sac.

These diseases can be unilateral (cancer) or can be bilateral.

### Preoperative workup and other diagnostics:

- General physical examination, including a rectal exam to palpate the anal sacs/anal glands for nodules and changes in size/consistency.
- Preoperative laboratory work is generally indicated, especially in dogs with AGASACA, as they might have bloodwork abnormalities (elevated calcium).
- Imaging: abdominal imaging might be indicated based on the pet's symptoms and signalment, and could include baseline radiographs and/or ultrasonography, or CT – especially if a tumor is expected, as they can spread (metastasize) to the local lymphnodes in the pelvic canal and belly.
- Thoracic radiographs might be considered based on the pet's age, signalment & symptoms.

### Procedure:

#### Anal sac removal:

Lymph node removal: if indicated, based on imaging, in patients with an AGASACA. The abdomen (belly) is opened, and the lymph nodes identified (they are surrounded by larger vessels, the colon and bladder). They are carefully separated from the surrounding structures and the incisions are closed. This procedure might be done prior to the anal sac removal, or if it is done second, new gloves and instruments are used as the skin on the belly is cleaner than the skin around the anus.

### Complications:

As with any surgical procedure, there are always risks associated with general anesthesia. For otherwise healthy pets, these risks are usually low, but are considered increased in older animals, or animals with systemic illness.

Surgical risks & complications of *anal sac removal* include:

- surgical site infection – any incision closer to the anus is at increased risk for infection.
- bleeding: some larger vessels lie on the floor of the pelvic canal, and trauma to these vessels could lead to significant bleeding, and interfere with accurate visualization of other structures (such as nerves).
- neurologic trauma/issues: the nerves that innervate the anus lie closely to the muscles used to repair the hernia, and on the floor of the pelvic canal, together with the vessels. Stretching or other trauma to the nerves can cause incontinence. This might be temporary, or might be permanent. The risk is higher for patients needing both anal sacs



removed, if they have a large tumor, or with inflamed/scarred tissues (recurrent infections, prior surgery).

- incomplete removal of the tumor (histologically), with a risk of tumor regrowth
- if a part of the anal sac remains behind (especially if infected) this might lead to local abscessation and/or draining tracts.

Surgical risks & complications of *abdominal lymph node removal* include:

- surgical site infection
- bleeding: some larger vessels lie on the floor of the pelvic canal, and trauma to these vessels could lead to significant bleeding, and interfere with accurate visualization of other structures (such as nerves).

Your surgeon will discuss these complications in more detail during your pet's visit

### **Postoperative Care:**

#### *In hospital care:*

- We would typically keep your pet the first one or two nights after surgery for a scheduled procedure –We will make sure your pet is comfortable, and is able to defecate appropriately prior to sending them home with you.
- An E-collar must be worn during the first 10-14 days to allow the incisions to heal. We will start your pet on the at home medications while in hospital, which also allows us to adjust the dose of stool softeners, if needed.

#### *At home care:*

- We would still recommend wearing an E-collar, and leash walks/exercise restriction for the first 10-14 days after surgery to allow all the incisions to heal.
- Your pet will be on stool softeners for the initial time after surgery, until we are sure that the site has appropriately healed. The dose/amount can be tapered or adjusted to make sure that the stool is of a soft consistency without it becoming too loose/runny.

### **Prognosis**

Depends on the reason (cancer vs impaction)