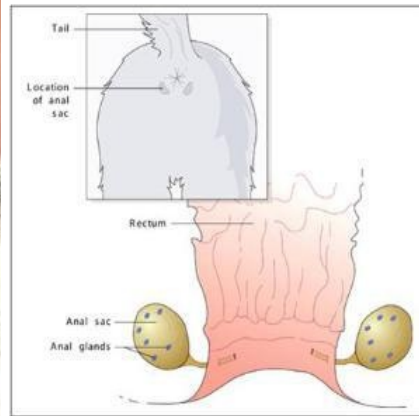


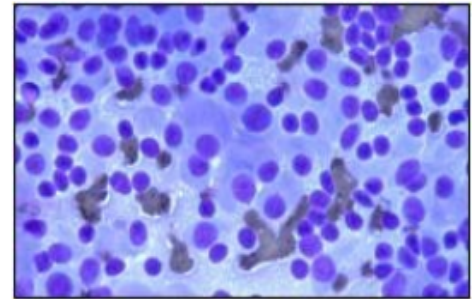
ANAL SAC GLAND ABSCESS &/or TUMORS

Associated Terms:

Apocrine Gland Adenocarcinoma of the Anal Sac, Anal Sacculectomy, Anal Sac Adenocarcinoma, Anal Gland Abscess or Infection



The figure above is a diagrammatic representation of the location of the anal glands on a dog.



Cytology from fine needle aspirate of an anal sac adenocarcinoma. Typical epithelial cell clustering is noted.

OVERVIEW

Anal sacs are **paired small pouches** located on either side of the anal opening in dogs, cats, ferrets & other animals. The lining of the sacs produces a smelly brown liquid that is usually eliminated in small quantities during defecation. The purpose of the anal sac is unknown but it is thought that they function in communication about the animal or its territory.

Anal sacs can become inflamed, infected or impacted (blocked). With these conditions it is common for your pet to scoot their bottom on the ground & lick or chew at the area.

Tumors of the anal sacs (apocrine gland adenocarcinoma is the most common tumor type) **are a serious but uncommon problem** because they tend to invade surrounding tissues & metastasize (spread to distant tissues) even when the primary tumor is very small. The tumors are almost always only on one side. In approximately 25% of cases, the tumor can cause hypercalcemia (elevated blood calcium), which can cause kidney failure.

Anal sac abscess or tumors occur in male & female dogs with roughly an equal incidence. They **occur in any breed but are more common in Spaniel breeds**. 10 years is the average age of affected dogs. Anal sac tumors are very rare in cats.

Often mistaken for an impacted anal sac, these tumors are a concern at any size.

“I don’t understand what an anal sac/gland abscess or tumor removal procedure is; please help me understand the condition & the treatment.”

Most tumors of the anal sac/gland are malignant tumors, meaning they have the behavior of spreading to distant organs like the lymph nodes, liver & lung. These are tumors that are treated well with surgery; size & “catching it early” really do matter. The prognosis for a tiny tumor without lymph node spread (average 1,750 days) is three times as long as that for a large tumor that has spread to the lymph nodes (average 510 days). Still, the surgical removal of these tumors (& their diseased lymph nodes) offers prolonged disease-free & comfortable quality of lives for pets.

In 25% of patient with this tumor, there is an abnormal substance secreted by the tumor that makes the blood calcium level rise to dangerous levels. These high calcium levels can be a problem mainly with the kidney, causing significant damage if not treated (temporarily with medication) or permanently (with tumor removal). Both the tumor near the anus & the tumor in the lymph nodes (if present) will cause this rising calcium, so both need to be removed. The prognosis for patients with this tumor variant that raises calcium levels is shorter (average 250 days).

CLINICAL SIGNS & SYMPTOMS



The signs of anal sac tumors can be variable:

- An external swelling in the perianal region
- A mass may be felt during a routine rectal examination
- Constipation
- Pain or straining to defecate
- Blood in the stool
- Excessive thirst & urination may occur if kidney failure is present from elevated calcium levels
- Without enlarged lymph nodes (in the abdomen), even a large tumor often produces limited symptoms associated with defecation

Animal owners may observe symptoms of kidney failure from the elevated calcium (referred to as hypercalcemia of malignancy).

These symptoms generally include:

- Increased thirst
- Increase in urination
- Vomiting
- Loss of appetite
- lethargy (weakness/tiredness)

DIAGNOSTICS

In general, the following tests are recommended to diagnose the tumor, provide a clear clinical picture of overall health & evaluate for metastasis:

- **Aspiration:** A small needle is inserted into the tumor to obtain a few cells that can differentiate cancer from infection or inflammation.
- **Blood tests:** Assess overall health. Evaluating for hypercalcemia & kidney failure
- **Chest x-rays:** Evaluate for metastatic nodules & other heart & lung problems
- **Abdominal ultrasound:** Examination to evaluate for enlarged lymph nodes or tumor spread into other organs such as liver, kidneys, etc. These enlarged lymph nodes are often what produce symptoms associated with defecation.

“Why is this procedure being recommended for my pet?”

~50% of these anal gland abscess or tumors are noticed on routine annual exams during a digital rectal exam performed by your primary care veterinarian. Other times, owners notice pets straining to defecate or excessive pet attention directed at their own bum. These tumors can grow quite large & if/when they spread to the lymph nodes in the abdomen, they can cause significant problems with abdominal discomfort & inability to pass stool or urinating. Surgical removal is the primary treatment for both the chronic abscess or anal gland mass is near the anus & the diseased lymph nodes in the abdomen.

TREATMENT

Consultation with your primary care veterinarian may result in a referral to a veterinary surgeon to fully explore your options.

- **SURGERY** is the mainstay of treatment. It is the only proven method to influence survival of dogs with these chronic abscess or tumors. The tumor is removed through an incision adjacent to the anal opening directly over the chronic abscess or tumor. Wide & aggressive removal is not feasible due to the adjacent rectum & anus. With large tumors, additional tissue attached to the tumor may need to be removed.
- If there are enlarged lymph nodes in the abdomen, they are removed through an abdominal surgical approach on the underside of the dog. These nodes are enlarged in about 50% of cases. This can be done at the time of the primary tumor removal, shortly thereafter, or later if these nodes enlarge. This procedure is done to alleviate the constipation & difficulty defecating.
- If kidney failure or hypercalcemia is present, therapy with intravenous fluids & medications may be needed prior to surgery to make your dog a more suitable candidate for anesthesia.
- If applicable in anal gland tumor only; after surgery, chemotherapy and/or radiation treatment may improve the life expectancy of your pet.

“What options do I have to treat my pet’s disease?”

The first finding is a lump near the anal sac/gland. Taking a needle sample will help understand the nature of the lump, whether infection/inflammation or tumor. If this sample suggests the lump is a tumor & it is in the expected location for an anal sac/gland tumor, the most effective treatment is surgical removal. Additional tests before surgery will help determine whether there is any tumor spread to lymph nodes or other organs; ultrasound of the abdomen & chest x-rays are the most useful tools for this

exploration. If the lymph nodes in the abdomen appear diseased, surgical removal of these lymph nodes is effective at slowing down the progression of the disease & additional medications postoperatively may delay progression as well. A discussion with a veterinary oncologist may also be a useful experience to gain the most information before making your final decision for your pet.

AFTERCARE & OUTCOME

Most animals are discharged 1-2 days after surgery. There is usually a follow-up appointment to see how your dog is doing & to remove skin sutures or staples (if present). Pain can be well-controlled with owner-administered medications. Local block called Nocita will be used which is a local numbing agent that will help with pain for ~3 days locally.

Restrictions following surgery usually are:

- Use of a restrictive collar for 10-14 days after surgery to prevent the natural tendency of dogs to lick & chew at a wound. This can cause breakdown of the wound & infection.
- Stool softening medications may be needed until swelling resolves
- Limited & restricted activity is indicated for about 2 weeks to allow recovery & incision healing

Postoperative complications can include:

- Incision infection
- Wound breakdown (dehiscence)
- Fecal incontinence can occur in up to 33% of dogs especially with removal of larger masses. This is usually temporary but owners need to be aware of this problem. If the tumor is only on one side, the incontinence is typically partial in that the dog has difficulty controlling bowel movements but not continuous dropping of stool
- Continued kidney problems

The prognosis of chronic anal gland abscess after surgical removal is good to excellent. This is usually a permanent surgical fix.

The prognosis with apocrine gland adenocarcinoma depends on type of treatment, size of mass, presence of hypercalcemia & presence of lymph node involvement. Surgical removal of these nodes can produce long-term relief of constipation. Some animals have had multiple surgeries to remove recurrent lymph nodes to alleviate obstructions successfully.

It is important that your veterinarian examine the anal sacs as part of your dog's routine examination. Early detection can greatly improve survival & reduce pain & discomfort.

“What postoperative complications do I need to know & understand when considering this surgery?”

Removing a chronic abscess or tumor near the anus requires the removal of a portion of the anal “ring”. If the tumor is small enough, if less than 50% of the anal ring is removed & if important nerve/ blood vessel structures are not involved, postoperative problems with dropping stool may be avoided. There will be some cosmetic puckering of the anus & it will look abnormal, but function is usually maintained when the patient has normal stool. Bouts of diarrhea can cause loss of stool control temporarily. Managing the level of the fiber in the diet & attention to defecation habits can reduce the impact this abnormality has daily life for all involve.

“Are there situations when the surgical outcome is not what we hoped it would be?”

Spread of the original disease, usually to (additional) lymph nodes in the abdomen & then to liver, lung & spleen, is the major long-term concern with this type of tumor. Approximately 15% of patients will have the tumor re-grow at the original surgery site; 30% of patients will have the tumor grow or re-grow at the abdominal lymph node sites; & 15% will have spread to liver, lungs or spleen. If the tumor regrows at the surgery site, the original concern for problems with defecation & discomfort will come back. If the tumor grows large enough in the abdominal lymph nodes, it can push down on the colon & the urethra preventing defecation & urination & causing significant abdominal discomfort. If the tumor spreads to other organs, it will make the patient feel sick & lose weight.

“How is my pet’s life & lifestyle likely to change after this procedure?”

If the tumor is small & easy to remove, there is unlikely to be any lifestyle change for your pet. A larger, more challenging removal might result in the need for more attention to your pet’s hygiene & defecation habits, if stool control is reduced. Sometimes, simple changes to the diet can reduce the impact of these problems.

The removal of enlarged, diseased abdominal lymph nodes is a technically challenging surgery but not excessively invasive for your pet. There are not long-term negative effects likely for lymph node removal. But even if the diseased lymph nodes in the region are removed, additional regional lymph nodes can & likely will, be a problem in the future. Surgery is the first step to slowing this progression; additional medication therapy is another step toward that goal.

“Are there things I can do to prepare myself, my home &/or my pet for this procedure?”

Surgery on the bum hurts; we control much of that pain with medications, but the act of defecation & “pinching the anus closed” to hold stool back can be painful. Because of this, we advise not to expect your pet to have good stool control for up to 2-3 weeks postoperatively. Accidents in the house may happen & will not be the pet’s fault. Conscientious dogs are upset & feel guilty about this, so do your best to let them know you are not unhappy with them! Expect to walk them more to help with outdoor defecation; & plan on tidying up their bum after being outside to maintain hygiene (a damp, warm cloth for blotting gently or a light warm water spray from hand-held sprayer are both useful for this job.)

We usually recommend an addition of insoluble fiber to the diet in the form of wheat or oat BRAN. This can be found in the grocery store or near flour products (Bob’s Red Mill is a commonly found brand). Sprinkling on wet kibble or canned food is all that is needed. The goal is large, well formed, bulky stool that is easily passed. Monitor stool character & adjust the volume of bran daily to achieve that goal.

Outpatient surgery & anesthesia can be uncomfortable, painful, disorienting & frustrating experiences for animals; watching your pet work through the early postoperative period & recover from anesthesia & pain medications can be worrisome, scary & frustrating for pet owners. The vast majority of the time this period of difficulty is brief, & the pet is actually more comfortable & secure at home with you. Sometimes it doesn’t feel like that at two in the morning when your pet is anxious & not consolable, & you are unsure of what to do.

You always have the option of transporting your pet to a 24-hour veterinary facility postoperatively. If you do not want to have your pet home in the first few days postoperatively, please advise your primary care veterinary staff. They will provide contact information for a local 24-hour veterinary facility & help get an estimate for the ongoing care. It is important that you have proper expectations about this procedure; your experience & you pet’s outcome will benefit greatly. Please discuss this information with your veterinarian when working through the decision-making process regarding Anal Sac Gland Abscess or Tumor Removal.

If you have any questions, please feel free to ask your primary veterinarian &/or veterinary surgeon.

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