

ANAL and/or PERIANAL SAC TUMORS

<p>Description</p> <p>What are the anal sacs and anal glands? and What is an anal sac tumor? <i>VCA Animal Hospital</i></p>	<p>What are the anal sacs and anal glands? (<i>VCA Animal Hospital</i>) Dogs and cats have a pair of anal sacs, one located on each side of the anus, between the external and internal anal sphincter muscles.</p> <ul style="list-style-type: none"> • The sacs are lined with modified sweat glands called anal glands. • The anal glands normally produce foul-smelling, grey-brown, granular secretions, which are stored in the anal sacs. <p>What is an anal sac tumor? An anal sac tumor is a tumor made up of cells originating from the glands of the anal sac.</p> <ul style="list-style-type: none"> • The tumor usually grows quickly and has a moderate rate of spread. • One of the biggest problems with anal sac tumors is that they can spread elsewhere in the body (metastasize). • Their growing size can make removal difficult. • The earlier these tumors can be detected, the better for your pet. • Anal sac tumors are referred to as anal sac adenocarcinoma. (<i>VCA Animal Hospital</i>)
<p>Breeds at Risk</p> <p>Which dogs are most commonly affected? <i>Cornell</i></p>	<p>Which dogs are most commonly affected? (<i>Cornell</i>) These tumors are found mostly in older dogs with an average of about 10 years of age. There is no difference in occurrence between males and females. Breeds most commonly affected include:</p> <ul style="list-style-type: none"> • Alaskan Malamutes • Cavalier King Charles Spaniels • Dachshunds • English Cocker Spaniels • English Springer Spaniels • German Shepherds • Golden Retrievers (<i>Cornell</i>) <p>Other:</p> <ul style="list-style-type: none"> • Beagle • English Bulldog • Samoyed • Schnauzer, Miniature • Siberian Huskey
<p>Causes</p> <p>Causes of Perianal Tumor in Dogs <i>Wag</i></p>	<p>Causes of Perianal Tumor in Dogs (<i>Wag</i>) While the definitive cause of perianal tumors is still unknown, testosterone is believed to influence cell proliferation in the glands.</p> <ul style="list-style-type: none"> • Intact male dogs have an increased risk compared to females in developing these tumors. • For females, adrenocortical hormones may play an important role in tumor growth. • Additionally, genetic factors may also influence the possible progression of this type of tumor. (<i>See breed list above</i>) (<i>Wag</i>)

<p>Symptoms</p> <p>Signs & Symptoms ACVS</p>	<p>Signs & Symptoms (ACVS)</p> <p>The signs of anal sac tumors can be variable:</p> <ul style="list-style-type: none"> • 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 and 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 <p>Animal owners may observe symptoms of kidney failure from the elevated calcium (referred to as hypercalcemia of malignancy).</p> <p>These symptoms generally include:</p> <ul style="list-style-type: none"> • increased thirst • increase in urination • vomiting • loss of appetite • lethargy (weakness/tiredness) (ACVS)
<p>Testing / Diagnostics</p> <p>Diagnostics ACVS</p> <p>Diagnosis of Anal Sac Disease in Dogs and Cats <i>Merck Manual</i></p>	<p>Diagnostics (ACVS)</p> <p>In general, the following tests are recommended to diagnose the tumor, provide a clear clinical picture of overall health and evaluate for metastasis:</p> <ul style="list-style-type: none"> • 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 and kidney failure • Chest x-rays: Evaluate for metastatic nodules and other heart and 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. (ACVS) <p>Diagnosis of Anal Sac Disease in Dogs and Cats (Merck Manual)</p> <p>Physical examination, although microscopy, ultrasonography, or biopsy may be required</p> <ul style="list-style-type: none"> • Diagnosis of impaction, infection, or abscessation is confirmed by digital rectal examination, at which time the sacs can be expressed. • Microscopic examination of the contents from infected sacs reveals large numbers of polymorphonuclear leukocytes and bacteria. • A tumor should be suspected (anal sac apocrine adenocarcinoma) in anal sacs that are firm, enlarged, and non-expressible even with irrigation. • Ultrasonography may be useful to determine whether a firm, non-expressible anal sac is due to infection/abscessation or neoplasia. • In the case of a suspected tumor, the diagnosis should be confirmed by biopsy. • Regional and systemic metastasis should be evaluated, and serum calcium should be measured. (Merck Manual)

<p>Treatment</p> <p>Treatment ACVS</p> <p>How is it treated? Cornell</p> <p>Chemotherapy Improve Vet Practice</p>	<p>Treatment (ACVS)</p> <p>Consultation with your primary care veterinarian may result in a referral to a veterinary surgeon to fully explore your options.</p> <ul style="list-style-type: none"> • Surgery is the mainstay of treatment. <i>It is the only proven method to influence survival of dogs with these tumors.</i> <ul style="list-style-type: none"> ○ The tumor is removed through an incision adjacent to the anal opening directly over the tumor. ○ Wide and aggressive removal is not feasible due to the adjacent rectum and anus. ○ With large tumors, additional tissue attached to the tumor may need to be removed. This may result in some of the complications. • If there are enlarged lymph nodes in the abdomen, they are removed through an abdominal surgical approach on the underside of the dog. <ul style="list-style-type: none"> ○ 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 and difficulty defecating. • If kidney failure or hypercalcemia is present, therapy with intravenous fluids and medications may be needed prior to surgery to make your dog a more suitable candidate for anesthesia. In some cases, kidney failure can be permanent. • After surgery, chemotherapy and/or radiation treatment may improve the life expectancy of your pet. (ACVS) <p>How is it treated? (Cornell)</p> <p>Dogs with hypercalcemia may need to be stabilized with intravenous fluids and medications, such as corticosteroids or diuretics.</p> <ul style="list-style-type: none"> • Surgery to remove the mass and the entire anal sac (anal saccullectomy) is the treatment of choice. Complete removal can be challenging for larger masses due to their proximity to the rectum. One of the major complications of surgery is fecal incontinence, which may be temporary or permanent. Other complications include infection, poor wound healing and anal stricture. • If enlarged lymph nodes are present, they can be removed via a separate approach through the abdominal wall. This can be a complicated procedure, and it carries risks of severe hemorrhage and nerve damage that can result in temporary or permanent urinary incontinence. The overall complication rate is approximately 10%. • Radiation therapy may be used preoperatively, intraoperatively or postoperatively on the anal sac mass and the lymph nodes — reducing the risk of recurrence in cases where complete removal is not possible. It can also be used palliatively in cases where surgery is not an option. Complications, including life-threatening ones, can occur. • Chemotherapy has not been proven to improve survival, but may provide some benefits, especially when combined with radiation therapy. • Palliative care will include pain medications, such as nonsteroidal anti-inflammatories (NSAIDs), corticosteroids (not if NSAIDs are being used), fluid therapy and diuretics. (Cornell)
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<p>Follow up and Prognosis</p> <p>Aftercare and Outcome ACVS</p>	<p>Aftercare and Outcome (ACVS) Most animals are discharged 1-2 days after surgery.</p> <ul style="list-style-type: none"> • There is usually a follow-up appointment to see how your dog is doing and to remove skin sutures or staples (if present). • Pain can be well-controlled with owner-administered medications. <p>Restrictions following surgery usually are:</p> <ul style="list-style-type: none"> • Use of a restrictive collar for 10-14 days after surgery to prevent the natural tendency of dogs to lick and chew at a wound. This can cause breakdown of the wound and infection. • Stool softening medications may be needed until swelling resolves • Limited and restricted activity is indicated for about 2 weeks to allow recovery and incision healing <p>Postoperative complications can include:</p> <ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> ○ 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

	<p>The prognosis with apocrine gland adenocarcinoma depends on type of treatment, size of mass, presence of hypercalcemia and presence of lymph node involvement.</p> <ul style="list-style-type: none"> • 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. <p>It is important that your veterinarian examines the anal sacs as part of your dog's routine examination. Early detection can greatly improve survival. (ACVS)</p>
References	<p>ACVS - College of Vet surgeons - Anal Sac Tumors in Dogs https://www.acvs.org/small-animal/anal-sac-tumors-in-dogs/</p> <p>Cornell Richard P. Riney Canine Health Center - Anal sac adenocarcinoma https://www.vet.cornell.edu/departments-centers-and-institutes/riney-canine-health-center/canine-health-information/anal-sac-adenocarcinoma</p> <p>Improve Vet Practice - Diagnosis and management of canine anal sac adenocarcinomas by Andy Yale 02 September 2022 PUBLISHED IN: DOGONCOLOGYSMALL ANIMALVET https://www.veterinary-practice.com/article/diagnosis-and-management-of-canine-anal-sac-adenocarcinomas</p> <p>Merck Manual - Anal Sac Disease in Dogs and Cats <i>By Alex Gallagher, DVM, MS, DACVIM-SAIM</i> <i>Reviewed/Revised Oct 2020</i> https://www.merckvetmanual.com/digestive-system/diseases-of-the-rectum-and-anus/anal-sac-disease-in-dogs-and-cats#Treatment_v3261377</p> <p>VCA Animal Hospital Anal Sac Tumors By Malcolm Weir, DVM, MSc, MPH; Christopher Pinard, DVM, DVSc, DACVIM (Oncology) https://vcahospitals.com/know-your-pet/anal-gland-tumors</p> <p>Wag - Perianal Tumor in Dogs Written By Grace Park, Published: 04/06/2017Updated: 04/05/2021 Veterinary reviewed by Michele K. https://wagwalking.com/condition/perianal-gland-tumor</p>