

Analsaccullectomy

Anal sacs are vestigial sacs that sit at the level of 4 and 8 o'clock position extending laterally from the anus. They are round with a thin duct that opens into the anus. The sacs are lined with epithelium and glands that make a waxy, odiferous substance that can vary from a liquid to a paste.

Anal sacs can be affected by impaction, sacculitis (inflammation), and abscessation. Small breeds of dogs may be overrepresented for anal sac disease. The exact cause of anal sac disease is not known at this point, although hypersecretion of the glands, difficulty emptying the glands, and skin disease have all been implicated.

Clinical signs of inflamed or impacted anal glands include scooting, licking, and biting the rear, discomfort when sitting, pain when defecating, the presence of draining tract on the perineum or at the duct openings in the anal orifice, or visible swelling in the perineum.

Occasionally, anal sacs may develop cancer. Most commonly, this is apocrine gland adenocarcinoma. This cancer forms in the sac and can invade the surrounding soft tissues as they progressively grow. Cocker Spaniels are overrepresented. Clinical signs are similar to impaction, although with an anal sac tumor, it is possible that difficulty defecating could be related to the presence of a mass putting pressure on the rectum, or the regional lymph nodes (sublumbar lymph nodes) enlarging and putting pressure on the colon. Some dogs may have an increase in thirst and urination, as these tumors can cause parathyroid hormone related protein (PTHrP) to increase in the blood; it also causes blood calcium levels to increase. Tumors have been reported to be bilateral in 10% of patients, and it has been noted that tumors may occur in the non-affected anal sac within a year of diagnosis of the affected one.

Diagnostic testing includes CBC, chemistry panel, urinalysis, and thoracic and abdominal imaging. On exam, rectal examination is performed to evaluate the anal sacs, their ability to be expressed, and palpation of the sublumbar lymph nodes to assess for lymph node enlargement. An ultrasound of the abdomen is performed to look for evidence of metastatic disease in the lymph nodes, liver, and spleen. Radiographs of the chest may be done to look for evidence of cancer spreading to the lungs. A fine needle aspirate of the anal sac mass is usually helpful in the diagnosis. Bloodwork will help determine if the kidneys are functioning normally, as an increase in blood calcium levels can lead to kidney failure and should be treated before anesthesia and surgery.

Anal sacs that are impacted can be treated by expression of the sacs. If an abscess is present, it should be appropriately treated by lancing and lavaging. Antibiotics may be needed if abscessation is present. Increased fiber in the diet may help bulk the feces to encourage the sacs to empty when defecation occurs.

In cases where the anal sacs are repeatedly causing problems, or with cancer, it may be recommended to have the anal sacs removed surgically; this is called an anal saccullectomy. If infection or abscessation is present, this is treated prior to surgery. In this surgery, the skin overlying the anal sacs is incised, the sac is located and then dissected free from surrounding tissue. Care is taken to avoid any area nerves, and to dissect all the way up the neck of the sac to fully remove it. The removed sacs are sent for histopathology to detect the presence of cancer. If cancer is found, chemotherapy is recommended to help increase the patient's survival time.

Complications of anal sac surgery include infection, difficulty defecating, nerve damage resulting in poor anal sphincter function, and tumor recurrence and/or metastasis. Tumor size is a main indicator of prognosis – tumors larger than 2.5cm have a poorer prognosis. Tumors greater than 5cm in diameter will have lymph node metastasis almost 90% of the time. Dogs in renal failure also have a poor prognosis.

Adapted from Veterinary Surgery: Small Animal, 2nd edition, Elsevier Inc, 2018.