

## BASIC INFORMATION

### Description

Perianal tumors are tumors that develop on or close to the anus. Dogs and cats have several types of glands around the anus. Some of the material they produce is stored in the anal sacs, which are two small pouches located beside and slightly below the anus. (See handout on **Anal Sac Diseases**.) Perianal tumors most commonly arise from the glands or from the anal sacs; however, certain skin tumors can develop in the perianal region. Perianal tumors include benign (adenoma) and malignant (adenocarcinoma, carcinoma) masses of the perianal glands, the anal sacs, and the anus itself. Perianal tumors are most commonly diagnosed in dogs but are occasionally found in cats.

### Causes

There is no known cause for tumors that arise from the anal sacs. Benign perianal adenomas occur most commonly in older male dogs that have not been castrated. In these dogs, the tumors seem to develop because of long-term exposure to the male hormone testosterone.

### Clinical Signs

Perianal tumors may cause no signs and be found only on physical examination, or they may rupture and bleed, which can cause excessive licking at the anal area. In dogs with short tails, a mass may be visible. If the mass involves the anus, straining to defecate and blood on the feces may be noted. Perianal adenomas may arise as single or multiple masses, or they may produce a thickened ring of tissue that surrounds the anus (hepatoid circumanal adenoma).

Perianal adenocarcinoma may cause other clinical signs, such as increased water consumption and urine production if blood calcium is increased, as well as decreased appetite, lethargy, and reduced exercise tolerance. In many animals, an anal sac adenocarcinoma is first suspected when high blood calcium level is detected on screening laboratory tests.

### Diagnostic Tests

If a perianal adenoma is found on physical examination, laboratory testing may be recommended prior to surgery. Animals with suspected perianal adenocarcinoma require more extensive diagnostic evaluation, because these tumors have the potential to spread to other parts of the body (metastasize) and to cause changes in body chemistry (elevated blood calcium concentrations) that can lead to kidney failure. Besides laboratory tests, chest and abdominal x-rays and an abdominal ultrasound are commonly recommended. Examination of cells taken by fine-needle aspiration (cytology) allows differentiation between benign and malignant

tumors in some cases, but in others, confirmation of the type of tumor requires a surgical biopsy.

## TREATMENT AND FOLLOW-UP

### Treatment Options

Castration is often recommended for benign perianal tumors. Bleeding or fast-growing tumors are often surgically removed at the same time. Small tumors may regress following castration. In dogs with slow-growing hepatoid circumanal adenomas, no specific therapy may be recommended, but if the skin of the anus becomes irritated or ulcerated, soothing creams may be prescribed.

Wide surgical removal is usually recommended for perianal and anal sac adenocarcinomas (along with the affected anal sac), as well as for anal carcinomas. Medical therapy to lower blood calcium and improve kidney function may be needed prior to surgery. Surgery to remove these tumors can be challenging, so your pet may be referred to a veterinary surgery specialist for the procedure. If the tumor has spread to other organs, effective treatment is difficult. Since surgical removal of all tumor cells is impossible in these cases, additional radiation and chemotherapy may be recommended.

In dogs with inoperable malignant tumors, only palliative treatment may be possible. This therapy aims at improving the quality of life but has no effect on the dog's survival time. Palliative measures may include administration of drugs that reduce blood calcium, pain, and nausea.

### Follow-up Care

Dogs with hepatoid circumanal adenoma may be monitored periodically. Notify your veterinarian if any changes occur in the ring of tissue. Dogs treated only with castration are often monitored for 1-3 months to ensure that the tumor is shrinking. Animals with malignant tumors require frequent follow-up visits, particularly if they are receiving radiation or chemotherapy.

### Prognosis

Prognosis for dogs with benign tumors is very good. Complications (fecal incontinence, anal strictures, infections) may arise after surgery but are uncommon unless the tumor is large or deep. In most cases of malignant tumors, the dog dies from the tumor and its side effects or is euthanized because of recurrence of the disease. Surgery, chemotherapy, and palliative therapy may extend the dog's life and provide better quality of life, but most dogs die within 1 year after diagnosis of a malignant tumor.