

BASIC INFORMATION

Description

Melanoma is a tumor that arises from cells (melanocytes) that produce a dark brown pigment known as *melanin*. Melanomas in the mouth of dogs are often malignant and require early, aggressive treatment for the best outcome. Oral melanoma is one of the more common malignant cancers of dogs but it is rare in cats.

Causes

No direct cause of oral melanoma has been identified in dogs. Dogs with darkly colored gums and black hair coats (such as the Scottish terrier) may be at higher risk. The tumor can occur in any breed, but it is more common in certain breeds, such as the cocker spaniel, German shepherd dog, poodles, dachshund, and golden retriever. Middle-aged or older dogs (average age, 10-12 years) are affected most often.

Clinical Signs

The main finding is a mass inside the mouth. The mass may be black or pink in color. It may arise from the gum near the teeth (gingival), from the inside of the cheek, high on the gums above the teeth, from the palate (roof of the mouth), or even on the tongue. Halitosis (bad breath), bleeding from the mouth and gums, loss of appetite, face rubbing, and trouble chewing or swallowing may occur. In some cases, the mass is only found during a regular physical examination.

Metastasis (spread) of the cancer to the lymph nodes (glands) under the jaw is possible. Melanomas may invade nearby bone, which causes the teeth to become loose and malaligned.

Diagnostic Tests

Diagnosis and management of oral melanoma can be challenging. It is very important to differentiate these lesions from an epulis (see handout on **Epulis in Dogs**), because treatment and outcome are often very different. Definitive diagnosis is obtained by histopathology, which requires surgical removal or biopsy of the tumor. These tumors can invade deeper tissues and can be aggressive, so surgery to obtain a biopsy specimen must be carefully planned to avoid problems that might complicate future surgical treatment. Some oral melanomas can be diagnosed by fine-needle aspiration (extracting cells with a needle) and examination of the cells under the microscope (cytology). However, cytology is not 100% reliable for identifying whether the tumor is a melanoma.

Laboratory tests, x-rays of the chest, and an abdominal ultrasound are often recommended to search for spread (metastasis) of the tumor. The process of assessing the amount of cancerous tissue present in the body is called *staging the cancer*. In some cases, x-rays, computed tomography (CT scan), or magnetic resonance imaging (MRI) of the jaw is done to establish the extent of tumor growth within the mouth. Your veterinarian may recommend referral to a veterinary oncologist (cancer specialist) for staging and treatment planning.

TREATMENT AND FOLLOW-UP

Treatment Options

The main treatment is surgical removal of the tumor. Wide margins (at least 1 inch or 2 cm) of apparently normal tissue must be removed in addition to the tumor, and this can be difficult to achieve in the mouth. Obtaining wide margins may require removal of teeth, a portion of the jaw (mandibulectomy), or a section of cheek bone (maxillectomy). Because radical surgery is often needed, your dog may be referred to a veterinary surgery specialist for the procedure. Following surgical removal, radiation therapy is sometimes recommended to kill any cells that may have been left behind.

A recently introduced therapy for oral melanoma involves administration of a vaccine that causes the dog's own immune system to kill melanoma cells. This treatment is usually administered after surgery has been done, and the vaccine is available only from a veterinary oncologist. The vaccine is most effective in cases in which the original mass was 1 cm (½ inch) or less in diameter, successful surgery was performed, and there is no evidence of metastasis to the lymph nodes or lungs.

Follow-up Care

The schedule for follow-up visits varies, depending on the treatment method used. Following oral surgery, soft foods are fed until healing of the site is complete. Antibiotics may be given for any secondary infections, and an Elizabethan collar may be applied to prevent self-trauma. Laboratory tests and chest x-rays may be repeated periodically to monitor for spread of the disease.

Prognosis

Oral melanoma has a poor prognosis in dogs. Even with aggressive surgery, radiation, and vaccine therapy, many dogs die within 6-12 months of the diagnosis.