

BASIC INFORMATION

Description

Several types of neoplasms (tumors) can arise in the intestines. They may be benign or malignant (cancer). Intestinal tumors can develop from cells that line the inside of the intestinal tract (carcinoma, adenocarcinoma), from inflammatory and white blood cells in the wall of the intestine (lymphoma, mast cell tumor, plasmacytoma, others), or from the muscles of the gut (leiomyoma, leiomyosarcoma). Benign polyps, fibromas, lipomas, and adenomas may also occur.

The most common tumors in dogs are adenocarcinomas and lymphomas, both of which are malignant. Lymphoma is the most common tumor in cats and may be either B-cell or T-cell in origin. In general, B-cell tumors are the more aggressive type. Other, less common types of tumors may also arise in the intestine or invade it from nearby structures.

Causes

No cause has been identified for most intestinal tumors in dogs. Some breeds are prone to certain forms of intestinal tumors. The golden retriever, boxer, Chinese shar-pei, English springer spaniel, Doberman pinscher, Labrador retriever, and German shepherd dog have a higher risk for lymphoma. The Bernese Mountain dog and the flat-coated retriever develop histiocytic sarcomas more often than other breeds. Leiomyosarcoma occurs most often in the German shepherd dog. Cats with inflammatory bowel disease or previous exposure to or infection with feline leukemia virus are more prone to intestinal lymphoma.

Clinical Signs

Clinical signs often depend on the location, type, and aggressiveness of the tumor. Common signs include weight loss, poor appetite, vomiting, and diarrhea. The latter two signs are more likely if the intestinal mass is obstructing the movement of food. Diarrhea (sometimes with mucus and straining) is common with tumors of the large intestine.

Some tumors bleed into the intestines, which can cause signs of anemia (pale gums, weakness) and either fresh, red blood or dark, tarry material (melena or digested blood) in the stools. If the intestine is affected as part of a widespread cancer (some forms of lymphoma, plasmacytoma, histiocytic sarcoma, others), then other signs may be present, lymph nodes (glands) and other organs may be enlarged, and other masses may be detected.

Diagnostic Tests

Because the main signs of intestinal tumors are vomiting, poor appetite, and weight loss and many diseases cause these signs,

extensive laboratory tests and x-rays are usually recommended. An abdominal ultrasound may be used to detect masses, assess nearby lymph nodes, and search for cancer in other abdominal organs. In some cases, fine-needle aspiration (extracting cells with a needle), done under ultrasound guidance, may reveal the type of tumor present. A gastrointestinal contrast study (a series of x-rays taken after the animal has swallowed barium) can be particularly useful for showing masses in the small intestines. Endoscopy, using a flexible fiberoptic tube, is useful to identify tumors in the upper small intestine or in the colon and also provides a means for obtaining biopsy samples and assessing the size of the lesion for planning additional surgery.

Obtaining a biopsy specimen is critical to making an accurate diagnosis of the type of neoplasia present, so that appropriate treatment can be planned and a prognosis can be given. If the tumor is not at the beginning or the end of the intestinal tract, the best method to obtain a biopsy is through abdominal exploratory surgery. If cancer is suspected, then chest x-rays may be recommended. Other testing may also be needed to rule out diseases that cause similar signs.

TREATMENT AND FOLLOW-UP

Treatment Options

Intestinal lymphoma is usually treated with chemotherapy. (See handouts on **Lymphoma in Dogs** and **Lymphoma in Cats**.) Surgical removal is usually recommended for other tumors. Some tumors can be completely cured by surgery, especially the benign tumors. For many malignant tumors, some form of additional chemotherapy or radiation therapy may be recommended.

Follow-up Care

Periodic follow-up visits are required after surgery and during chemotherapy for cancerous tumors, for the rest of the life of the animal. Laboratory tests, x-rays, and ultrasounds are often needed to monitor response to treatment, to detect evidence of spread of the tumor, and to check for side effects of the medications.

Prognosis

Prognosis is good for benign tumors that can be removed completely with surgery. Surgery and follow-up chemotherapy can extend the life of many animals with intestinal cancer, often by 6-12 months, but the long-term prognosis is poor, because many of these tumors recur. Prognosis is grave for animals with tumors that cannot be entirely removed or have already metastasized.