

Stomach Tumors Epithelial

These notes are provided to help you understand the diagnosis or possible diagnosis of cancer in your pet. For general information on cancer in pets ask for our handout "What is Cancer". Your veterinarian may suggest certain tests to help confirm or eliminate diagnosis, and to help assess treatment options and likely outcomes. Because individual situations and responses vary, and because cancers often behave unpredictably, science can only give us a guide. However, information and understanding about tumors and their treatment in animals is improving all the time.

We understand that this can be a very worrying time. If you have any questions please do not hesitate to ask us.

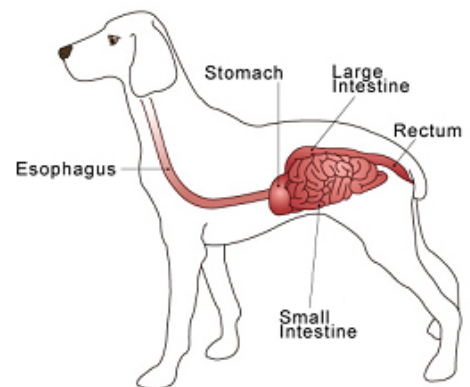
What types of tumors occur in the stomach?

Tumors of the epithelial, glandular stomach lining include **non-cancerous polyps** and some types of chronic (**hyperplastic**) **gastritis**. Malignant epithelial tumors (**gastric adenocarcinomas**) cause progressive illness. This usually starts only a few weeks before diagnosis but within that time, they have usually spread locally and to distant organs. Many recur following surgery.

What do we know about the cause?

The reason why a particular pet may develop this, or any cancer, is not straightforward. Cancer is often the culmination of a series of circumstances that come together for the unfortunate individual. It is the result of non-lethal genetic damage to cells, with "external" contributory factors such as radiation, chemicals, hormones and infections. The mutated cells upset the normal regulation of cell death and replacement. They do this by activating growth-promoting oncogenes (cancer genes), inactivating suppressor genes and altering the genes that regulate normal, programmed cell death (apoptosis).

"Chemicals such as nitrosamines have been shown to induce gastric adenocarcinomas."



Digestive System

In people, the bacterium *Helicobacter pylori* causes a spectrum of disease, which includes promoting the development of gastric adenocarcinoma. We do not know whether the same is true in dogs and cats, which also carry *Helicobacter* bacteria. Certain foods have been implicated in the development of stomach cancers in both people and farm animals and chemicals such as nitrosamines have been shown to induce gastric adenocarcinomas.

Why has my pet developed this cancer?

Some animals have a greater tendency (genetic susceptibility) to cancer. Some breeds have far more cancers than others, often of specific types. The more divisions a cell undergoes, the more probable is a mutation so cancer is more common in older animals.

Are these common tumors?

Benign stomach tumors are very rare. Malignant epithelial or glandular tumors (adenocarcinomas) occur more frequently, but are still uncommon in dogs and rare in cats.

How will these cancers affect my pet?

"Vomiting, often not associated with eating, occurs in almost all animals with gastric tumors."

Vomiting, often not associated with eating, occurs in almost all animals with gastric tumors. Sometimes the vomit may contain blood. Other clinical signs are weight loss, loss of appetite, diarrhea and blood in the feces.

How are these cancers diagnosed?

Your veterinarian may suspect cancer from the clinical signs. X-rays may be useful in detecting some tumors. Blood tests are not diagnostic but sometimes indicate if the tumor is bleeding internally. In order to identify the tumor, it is necessary to obtain a sample of the tumor itself. To obtain these samples, endoscopy or exploratory surgery may be recommended. Biopsies taken with the aid of an endoscope are rarely diagnostic for stomach cancer and examination of a larger surgical specimen from deeper tissue is usually needed. Your veterinarian will submit the biopsy samples to a specialized diagnostic laboratory for histopathology (the microscopic examination of specially prepared and stained tissue sections). A veterinary pathologist will diagnose the type of tumor and its prognosis, based on evaluation of the samples.



Abdominal X-Ray

From: Abdominal Radiology by Judy Hudson
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What types of treatment are available?

Treatment is complete surgical removal of the tumor.

Can these cancers disappear without treatment?

Cancer rarely disappears without treatment but as development is a multi-step process, it may stop at some stages, particularly if a promoting agent such as *Helicobacter* infection is removed. The body's own immune system can kill cancer cells but it is rarely 100% effective. Rarely, loss of blood supply to a cancer will make it die but the dead tissue will probably need surgical removal.

How can I nurse my pet?



After surgery, you need to keep the incision site clean and dry and prevent your pet from interfering with it. Report any loss of stitches or significant swelling or bleeding to your veterinarian.

"Your pet may require a special diet..."

Your pet may require a special diet and you may be asked to check that your pet can pass urine and feces or to give treatment to facilitate this. If you require additional advice on post-surgical care, please ask.

How will I know how the cancer will behave?

The histopathology report will give your veterinarian the diagnosis that helps to indicate how it is likely to behave. The veterinary pathologist usually adds a prognosis that describes the probability of local recurrence or metastasis (distant spread).

When will I know if the cancer is permanently cured?

Gastric polyps are usually cured by surgical removal. They are thought to be non-precancerous (not capable of becoming cancer).

Despite early diagnosis (often only weeks since illness was noted), most gastric adenocarcinomas are unfortunately already spreading locally at the time of surgery. Surgical removal is therefore difficult. They can also spread within the inside lining of the abdomen (peritoneum) and to many different parts of the body including the lungs. Post-surgical survival times have increased recently, rising from a few months to between one and three years.

Are there any risks to my family or other pets?

No, these are not transmitted from pet to pet or from pets to people.

This client information sheet is based on material written by: Joan Rest, BVSc, PhD, MRCPath, MRCVS

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