

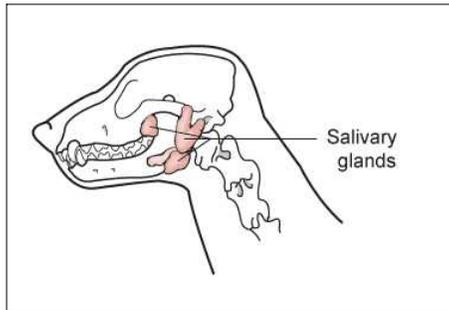
SALIVARY TUMORS

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 for tumors in animals is improving all the time.

We understand that this can be a very worrying time. We apologize for the need to use some technical language. If you have any questions please do not hesitate to ask us.

What are salivary tumors?

Salivary cancers are almost invariably malignant tumors originating from the secretory cells of the glands. Other swellings or tumors of salivary glands may be due to infections and cysts. The glands may also be swollen because of infiltrates of other cancers including those of fat, lymphoid, mast and melanocyte cells.



The classification of human salivary cancers is complex as treatment of these cancers in people is different for different types and different stages. In animals, less types have been recognized although **adenocarcinomas**, **mucoepidermoid tumors** originating from the gland ducts and **mixed tumors** are recognized. The tumors are locally invasive and spread (metastasize) to the adjacent lymph nodes (glands) as well to more distant parts of the body such as the lungs.

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 seemingly the culmination of a series of circumstances that come together for the unfortunate individual.

Cancer is non-lethal genetic damage of cells (mutations in the genome). Causes include radiation, chemicals, hormones and infections. Some animals have a genetic tendency to develop some cancers. 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).

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?

Tumors arising from the salivary glands are uncommon, although slightly more common in cats than in dogs. They are most frequent in older animals.

How will this cancer affect my pet?

These tumors usually cause a painful, one-sided swelling of the face or neck. Most are firmly attached to the adjacent tissues. Other clinical signs, sometimes noted before the swelling, include drooling saliva and difficulty in eating.

How is this cancer diagnosed?

Clinically, this tumor may be suspected. X-rays may be useful in detecting whether tumors have invaded the bones and to guide surgery.

Definitive diagnosis of tumor type relies upon microscopic examination of tissue. Cytology is the microscopic examination of cell samples and it may indicate cancerous cells. More accurate diagnosis, prediction of behavior (prognosis) and a microscopic assessment of whether the tumor has been fully removed rely on microscopic examination of tissue (histopathology). This is done at a specialized laboratory by a veterinary pathologist. The piece of tissue may be a small part of the mass (biopsy) or the whole lump but only examination of the whole lump will indicate whether the cancer has been fully removed. Histopathology also rules out other cancers.

What treatment is available?

Treatment is surgical removal of the lump and possibly the draining lymph nodes.

Can this cancer disappear without treatment?

Very occasionally, spontaneous loss of blood supply to the cancer can make parts of it die but the dead tissue will still need surgical removal. The body's immune system is not effective in causing these tumors to regress.

How can I nurse my pet?

After surgery, you will probably be provided with an "Elizabethan collar" to prevent your pet from interfering with the operation site. If the surgical wound is in the mouth, you may be requested not to examine it but inability to eat or significant swelling or bleeding should be reported to your veterinarian. If the surgical site is visible, loss of stitches should also be reported. Your pet may require a special diet. If you require additional advice on post-surgical care, please ask.



How will I know how this cancer will behave?

Histopathology 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). The completeness of excision will be assessed and other diagnoses ruled out.

When will I know if the cancer is permanently cured?

'Cured' has to be a guarded term in dealing with any cancer.

Benign tumors (adenomas) of salivary gland are too rare to predict behavior. The potential for malignant transformation is uncertain. Malignant tumors invariably spread locally and to the lymph nodes. Some also spread to distant organs such as the lungs. Survival time tends to be short because of the painful nature of the tumors.

Are there any risks to my family or other pets?

No, these are not infectious tumors and 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, MRCVS.
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