

Basal Cell 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.

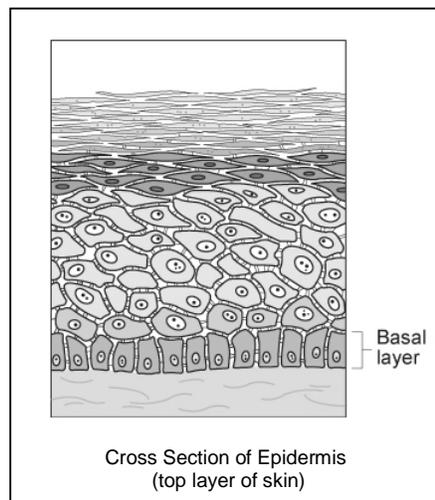
What is this tumor?

This slow-growing tumor is a disordered overgrowth of cells of the skin epidermis. It gets its name from its resemblance under the microscope to the basal cell layer of epithelium (see diagram). The tumor cells show minimal organisation into the local specialized skin structures structures (such as hair follicles and their glands). However basal cell tumors merge in their classification into the closely related benign (non-life threatening and non-spreading) tumors of hair follicles and their accompanying sebaceous and sweat glands.

Basal cell tumors are usually permanently cured by full surgical removal. Spread to other parts of the body (metastasis) is extremely rare.

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.



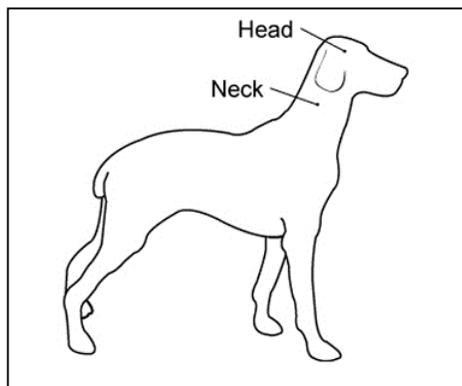
In humans, most of basal cell tumors develop in the areas of skin most exposed to sunlight (UVA and UVB radiation). In domestic animals this relationship is less clear but the closely related, and more malignant, squamous cell carcinoma of the surface skin is associated with chronic exposure to sunlight. The sun's radiation causes non-lethal genetic damage of cells (mutations in the DNA genome).

Is this a common tumor?

These tumors are relatively common in middle-aged to old cats but are less common in dogs. A few are found in young animals. In cats, the tumors may occur anywhere on the body and are often pigmented. They may be more common in long-haired cats. In dogs, the tumor is most frequent on the head and neck.

How will this tumor affect my pet?

Problems are usually physical and dependent on the size and site of the tumor. They frequently ulcerate and bleed and may become infected. In humans, development of these tumors is sometimes related to damage to, or suppression of, the immune system.



How is the tumor diagnosed?

Clinically, this tumor is often suspected. Accurate diagnosis relies upon microscopic examination of tissue. Various degrees of surgical invasion may be needed such as needle aspiration, punch biopsy and full excision. Cytology is the microscopic examination of cell samples, usually sucked (aspirated) from the tumor with a special needle. This is used for rapid or preliminary tests and it can often help to identify this tumor. Definitive diagnosis relies upon microscopic examination of stained sections of actual pieces of tumor (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. Histopathology also rules out other diseases including more serious cancers.

The histopathology report includes words that indicate whether a tumor is “malignant”. Malignancy is often shown by the word ending “carcinoma”. These, together with the origin or type of tumor, the grade (differentiation) and stage (how large it is and extent of spread) indicate how the cancer will behave (the prognosis).

What types of treatment are available?

Treatment is surgical removal of the lump.

Can this tumor disappear without treatment?

Cancer very rarely disappears without treatment. Very occasionally, spontaneous loss of blood supply to the cancer can make it die but the dead tissue will still need surgical removal. The body's immune system is not effective in causing this type of tumor to regress.

How can I nurse my pet?

Preventing your pet from rubbing, scratching, licking or biting the tumor will reduce itching, inflammation, ulceration, infection and bleeding. Any ulcerated area needs to be kept clean.

After surgery, the operation site similarly needs to be kept clean and your pet should not be allowed to interfere with the site. Any loss of sutures or significant swelling or bleeding should be reported to your veterinarian. If you require additional advice on post-surgical care, please ask.

How will I know if the tumor is permanently cured?

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

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

Almost all basal cell tumors are benign, grow slowly and remain localied. They can recur following incomplete surgical excision. This occurs because it is difficult to get a wide enough margin around the tumor at some sites. Sometimes cats will develop other, unrelated basal cell tumors at other body sites.

In a few cases the histopathological diagnosis is "basal cell carcinoma". This tumor will tend to recur locally although development is usually slow (months to years). Metastasis (spreading to distal areas) is very rare.

"Basosquamous carcinoma" (basal cell tumor with areas of squamous cell differentiation) is more aggressive than most basal cell tumors. It may recur locally but this is rare, provided there is full surgical removal initially. These tumors do not spread to other sites (metastasize).

Are there any risks to my family or other pets?

No, this is not an infectious tumor and it is not transmitted from pet to pet or from pet to people.

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