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## HEPATOID GLAND TUMOR

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.

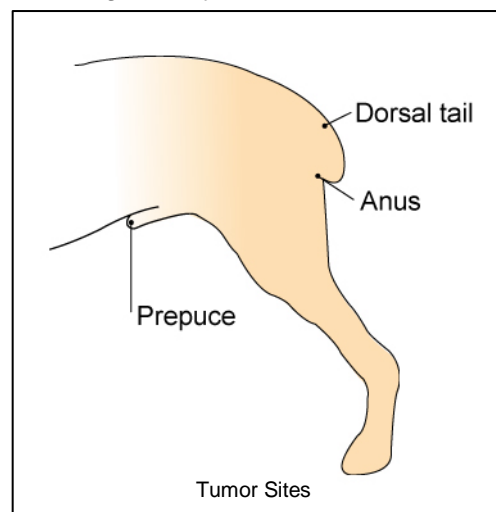
We understand that this can be a very worrying time. We apologize for the need to use some technical language. If you have any questions please do not hesitate to ask us.

### ***What is this tumor?***

This tumor is a disordered and purposeless overgrowth of modified sebaceous glands known as the hepatoid glands. These glands only occur in dogs. They are found in the skin around the anus, prepuce and dorsal tail and occasionally other areas of the skin. The tumor cells resemble liver (hepatic) cells. Most tumors are benign and can be permanently cured by total surgical removal. Many are multiple. Malignant hepatoid gland tumors tend to be locally invasive but very rarely spread to other parts of the body.

### ***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.



Hepatoid gland benign proliferations are under hormonal influence. Cells in these tumors have increased numbers of estrogen receptors on their surface compared to normal gland cells.

### ***Is this a common tumor?***

These are common tumors in male dogs, mainly in middle aged to older animals but may occur in the young. They are rare in castrated dogs and unusual in bitches but can occur in both intact and spayed bitches.

Tumors are frequently multiple and occasionally appear in unexpected places such as the shoulder, neck, face and chin.

### ***How will this tumor affect my pet?***

The tumors are noted as lumps, mainly around the anus but sometimes on the tail and prepuce. They vary from ¼” to 2” in diameter. Many need surgical removal as they become inflamed and ulcerated. They may be secondarily infected.

### ***How is the tumor diagnosed?***

Clinically, this tumor has a fairly typical appearance and site but accurate diagnosis relies upon microscopic examination of tissue. Various degrees of surgery may be needed to get proper tissue samples. These range from needle aspiration, to punch biopsy and full excision of the lump. Cytology is the microscopic examination of cell samples (often useful for rapid or preliminary tests). It is less diagnostic than histopathology, which is the microscopic examination of specially prepared and stained tissue sections. This is done at a specialized laboratory where the slides are examined by a veterinary pathologist. The information from this examination is more detailed and can indicate better how the cancer will behave (the prognosis) and whether the cancer has been fully removed. It also rules out other cancers.



### ***What treatment is available?***

Treatment is usually surgical removal of the lump(s) and castration of the dog to prevent further tumor development. Estrogenic and anti-androgen medication is also widely used for treatment but efficacy is not well documented.

Surgical removal of the tumor and neutering is recommended for unspayed bitches.

Castration is ineffective as treatment for the rare malignant tumors (carcinomas). In highly malignant cases, radiotherapy has been recommended as a palliative.

### ***Can this tumor disappear without treatment?***

Tumors very rarely disappear 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. Castration or spaying can cause benign tumors 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. You may be asked to check that your pet can pass feces.

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 tumor.

If the lump is sent for histopathological diagnosis, the diagnosis can be confirmed, also the completeness of excision assessed and other diagnoses ruled out.

Seventy percent of benign tumors (hyperplasias and adenomas) do not recur within a year after surgical excision. Benign forms of hepatoid gland tumors are under hormonal influence so with castration, 95% of non-ulcerated tumors will not recur. Tumors of borderline malignancy (epitheliomas) occasionally recur locally. Full surgical excision and castration is often curative.

Malignant tumors (hepatoid gland carcinomas) can spread to other parts of the body (metastasize) but one study found that three quarters of tumors less than 2 inches in diameter and without extensive local infiltration were cured by excision. Larger or invasive tumors caused more problems but only 14% had clinical evidence of metastasis. Progression was slow (months to years).

A few male castrated dogs will still develop this tumor. The adrenal cortex may produce increased sex hormones or the glands may be more sensitive to hormone as tumors have increased estrogen receptors compared to normal gland. It is difficult to prevent recurrent tumors in these dogs and in spayed bitches.

Your veterinarian may consider investigation of adrenal function in castrated dogs showing other clinical signs consistent with adrenal malfunction. This may include poor liver function.

***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 pets to people.