



SOLAR INDUCED SQUAMOUS CELL CARCINOMA IN DOGS AND CATS

Squamous cell carcinoma is a cancerous disease that most commonly involves skin. Fair-skinned people tend to be predisposed to this type of cancer after chronic, excessive exposure to sunlight. Likewise, white or light-colored cats are also susceptible to squamous cell carcinoma. Solar-induced squamous cell carcinoma usually occurs in areas with little hair coverage that are chronically exposed to sunlight. The most common areas affected in cats are the ear tip, eyelid and nose, while in dogs the groin and abdomen are frequently involved.

This disease may first become apparent in summer, when sunlight exposure is greatest. The first symptom of this disease that you will notice is reddening and scabs. Other early signs of this disease include mild hair loss and flaking of the skin. Usually the first impression is that your pet has psoriasis, in which the skin seems scaly and inflamed. If caught early, these clinical signs may be indicative of the precancerous form of the disease known as actinic keratosis. A small skin biopsy is required to differentiate precancerous actinic keratosis from squamous cell carcinoma. It is best to perform the biopsy procedure early because the clinical lesions of squamous cell carcinoma are subtle and similar to this form of keratosis.

TREATMENT

Early, effective treatment of precancerous lesions may prevent the onset of squamous cell carcinoma. Treatment for actinic keratosis includes sun restriction, especially during times of peak solar intensity; water-resistant sunscreens with sun protection factor (SPF) 15 or greater applied to the skin twice daily; topical steroid application; and possibly oral steroid or anti-inflammatory therapy. The drug Etretinate may also be used to alleviate symptoms. The effect of Etretinate is to decrease inflammation and skin flaking while normalizing skin cell metabolism. These therapies are not effective for lesions that have advanced to squamous cell carcinoma, underlining the importance of early diagnosis for suspicious lesions.

Squamous cell carcinoma is a locally aggressive tumor that can, but rarely spreads to other areas of the body. Treatment options include cryotherapy, laser surgery, traditional surgery, radiation therapy and chemotherapy injected into the tumor. The location, size and invasiveness of the tumor will determine which treatment is recommended.

Surgical removal of squamous cell carcinoma is most effective when performed as soon after diagnosis as possible. Early intervention decreases the amount of the skin that must be removed, because the lesion is smaller. Early surgical removal also decreases the incidence of spread of the cancer to the lymph nodes. There are different surgical methods that are effective in removing

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the cancer. With cryosurgery the affected area is frozen. The frozen tissue dies and is removed. Although this method may be effective, it is sometimes difficult to control the precise area of tissue freezing. Freezing an inadequate area may lead to recurrence of the cancer, and excessive freezing may result in an unsightly appearance and be associated with excessive scar and deformation of the remaining area. Laser surgery provides precise removal of the cancer with minimal, if any, side effects. Finally, traditional surgical methods may be used to remove the cancer. A small amount of normal-appearing skin is removed to ensure that the entire cancer has been removed. A pathologist will evaluate the excised tissue to make sure that the cancer has been completely removed. If the biopsy shows that the cancer has not been completely removed, further surgery may be performed. Animals tolerate the surgery well, and healing should progress without complication. Preventive care, such as limiting the outdoor activity of white or light-colored animals to periods of nonpeak solar intensity, should be continued after successful surgery.

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