Cutaneous Lymphoma-T Cell Lymphoma

Cutaneous Lymphoma represents about 5% of all canine lymphoma cases but proper diagnosis is often delayed or mistaken for other skin disorders. **Epitheliotropic lymphoma** is the more common form of cutaneous lymphoma. Epitheliotropic lymphoma is made of T-cell lymphocytes. Mycosis Fungoides is another term used for this cancer. This term sounds like it should be a benign fungal infection, but unfortunately it is a malignant cancer.

Cutaneous Lymphoma can present in a variety of lesions including ulcers, nodules, plaques, areas of scaling and patchy hair loss. With the progression of the cancer the skin may become reddened, thickened, dry scaly, or may even become ulcerated and ooze fluid. Any area of the skin may be affected but the most frequently areas affected are where there is a junction of mucus membranes and the skin. Examples include lip margins, gums, vulva, prepuce of the penis, and roof of mouth.

Because cutaneous lymphoma can initially be very mild or complicate pre-existing allergies, in some cases it can slowly progress over months or years before proper diagnosis. Cutaneous lymphoma in the mouth is often mistaken for periodontal disease or gingivitis in its early stages.

Diagnosis is based on biopsy. Treatment protocols must be individualized but even with aggressive treatment life expectancy is usually less than 18 months post diagnosis.

Case 1

Seven year old male beagle with two lesions. One lesion on shoulder and one lesion at base of nose. Lesions were removed and biopsy result was Cutaneous lymphoma. Initial life expectancy was 18 months. This beagle was a member of the beagle brigade and chemotherapy was to be initiated if any metastases were found. None were found and at three months post op he was allowed to return to work and ultimately retired at the mandatory age of 10. He lived with his handler until the age of 16.

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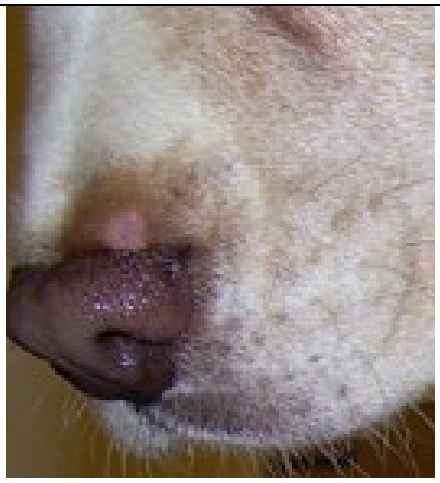

Case 2

Middle aged intact male beagle with skin lesions. Multiple vet visits and treated for variety of skin issues. Dermatologist consulted and remarked that dog needed dental when oral lesions were discussed. Treatment for skin issues continued. Diagnosis of cutaneous lymphoma made only weeks before dog died.

Case 3

August 2017- ***(This case contains graphic pictures) - It shows progression of oral T cell lymphoma.***

I had noticed my male beagles licking and sniffing the lip of my older female (13yrs), Molly. This alerted me that something was wrong and upon examination I found two small redden areas on her lower lip.

August 25, 2017- Veterinarian examined lesion and first consideration was irritation from upper canine tooth but plans for biopsy and dental were discussed. I suspected Cutaneous Lymphoma.

September 12, 2017- Dental and punch biopsy done of two areas. Steroid injections in areas post biopsy.

September 21, 2017 - Diagnosis of epitheliotropic lymphoma (mycosis fungoides) a T cell lymphoma.

Pathology

liopsy

DIAGNOSIS

Lip/skin, neoplasia, epitheliotropic lymphoma

Specimen Description

History: A 13 year old FS dog. Two masses unknown duration, lip fold of left mandible. Picture attached-thickening and ulceration of the lip, multifocal.

Gross: Two punch biopsies of lip/haired skin are received in formalin.

Histopathology

Lip/Skin: In both tissues there is a densely cellular, unencapsulated, infiltrative neoplasm in the lamina propria/dermis and epithelium. Cells are round and form sheets in pre-existing stroma. They are large with distinct cell borders, scant pale blue cytoplasm, and large round nuclei with fine chromatin and 1-4 central, obscured nucleoli. Cell variation is mild, mitoses are 3-5 per HPF. Cells exhibit marked junctional activity and epitheliotropism, sometimes forming intraepithelial cysts. Cells also infiltrate follicles. They obscure the basement membrane and abruptly terminate with the epithelium.
Neoplastic cells stain diffusely and cytoplasmically for CD79, while approximately 10% of the cells stain for CD3.

Comments

The location, gross findings, and light microscopic changes are most consistent with epitheliotropic lymphoma (mycosis fungoides), which is a T cell neoplasm that occurs uncommonly in older dogs. A category of this disease, ulcerative disease of the oral mucosa, can cause slight swelling to the tissues without forming discrete nodules. It is a progressive disease that becomes more nodular, with spread to local lymph nodes. Differentials in the oral mucosa include autoimmune skin disease, which was not evident here. Special stains are pending to verify the diagnosis. Epitheliotropic lymphoma prognosis varies with stage of disease and therapy, with survival times ranging from a few weeks to over 18 months. This seems to be an early stage, which may have a better response. Consultation with an oncologist is advised.
Immunostains show the neoplastic cells to stain positive for CD79 (B cell), with lesser numbers being CD3 positive (T cell). Thus, it is a lymphocyte neoplasm, but B cell origin tumors are almost unheard of. Further staining will be done, at an outside lab; an addendum will be provided.
Addendum: Additional testing could not confirm a B cell origin for this neoplasm. Clonality testing would be required to further elucidate this neoplasm. Please contact me within 2 weeks of receiving this report if you'd like to pursue other tests.

September 25, 2017- Recheck and surgery scheduled for resection of lip area. Steroid injection had greatly decreased the “angry look” of lesions.

October 4, 2017- resection L lower lip, steroid injection into tissue

October 10, 2017- started oral prednisone per suggestion of Oncologist. Chemotherapy regime discussed and I opted to not do Chemotherapy.

December 2017- Oral Steroids stopped due to increased water intake and difficulty in accidents in house especially at night.

September 12, 2018- One year recheck. Small reoccurrence areas noted.

September 18, 2018- Dental and second resection of left lip area done.

June 19, 2019- Recheck due to apparent reoccurrence of suspicious areas.

June 25, 2019- DepoMedrol injection into lip areas post cauterization of superficial areas.

November 26, 2019- Chest/abdominal xrays done to rule out metastases. None found. Lymph nodes normal. Third resection of left lower lip done.

April 6, 2020- Recheck tumors present and spreading.

July 14, 2020- Recheck tumor progression. Lesions noted in gums and around teeth. Opted for hospice care at this stage

August 29, 2020- Recheck necrotic tissue noted.

At this stage she was eating soft food only. Drainage was increasing and smell was increasing. She was still barking for food and acting normal.

December 2020

She was licking liquid food at this stage. Still normal acting- playing and appetite good. Drainage about the same and smell was horrible. Dead rotting flesh smell.

January 5, 2021- Euthanized

She was acting more depressed but still wanted to eat. She would bark for food. But obvious tumor was progressing rapidly and she was having great difficulty even licking liquid food. Drainage had increased 10 X normal and more blood tinged. I started to see signs of pain from her and the decision to let her go was made. She would have been 17 in February.

WEB SITES FOR ADDITIONAL INFORMATION:

Https://vcahospitals.com/know-your-pet/lymphoma-in-the-dog

https://vcahospitals.com/know-your-pet/lymphoma-of-the-skin

https://dermvettacoma.com/cutaneous-epitheliotropic-lymphoma/Clinical

https://vet.purdue.edu/pcop/canine-lymphoma-research.php

https://www.dvm360.com/view/dont-be-fooled-look-alike-skin-diseases

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242097/