



*'Excellence in surgical pathology'*

# Practical Pathology

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A newsletter for clinicians summarizing relevant advances in veterinary pathology



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## A Case of Generalized Gingival Hyperplasia

Fibrogingival hyperplasia is common in dogs, often presenting as solitary swellings or masses of the gingiva, but you may occasionally see more widespread lesions. This 10 year old castrated male Cocker Spaniel developed generalized, prominent swelling of the gingiva (see photo to right). Histologic exam revealed fibrogingival hyperplasia.

When you see such widespread lesions an underlying cause may be present, such as a drug reaction. Gingival hyperplasia has been seen after administration of cyclosporine and phenytoin as well as some calcium channel blockers, specifically amlodipine. This dog was given amlodipine for six months and the hyperplasia developed two months prior to the biopsy.

There is proliferation of gingival stroma in these cases along with thickening of the surface epithelium. A similar drug reaction has been seen in people and the mechanism is thought to be multifactorial. Underlying inflammation and hereditary factors may be involved along with the drug. For this reason, elimination of any inflammatory condition and discontinuation of the drug is ad-



Photo courtesy Dr. Hansen —thanks!

vised to see if the lesions resolve, but there are limited cases in dogs for follow-up. A drug reaction is something for you to keep in mind when presented with this type of widespread gingival proliferation.

References: Marlene S Pariser et al. Amlodipine-induced gingival hyperplasia in a great dane. *J Am Anim Hosp Assoc.* 2011 Sep-Oct;47 (5):375-6.

## Feline Progressive Histiocytosis

A recent submission from a 13 year old DSH cat was accompanied by a few photos. In the photo to the right you can see a raised plaque involving the lower lip. These scaling plaques were also seen on the dorsum and thorax as well as the face. There was progression from an initial lesion to multiple sites over a course of several months.

Biopsies of the lesions revealed dense, dermal infiltrates of round cells that had histiocytoid morphology. In some areas pleomorphism was mild and there were intermixed inflammatory cells, but other areas had more prominent nuclear size variation with scattered, larger, atypical cells. This morphology is consistent with feline progressive histiocytosis.

These cats may initially present with a single lesion, but multiple lesions develop over time. Typically there (cont page 2)

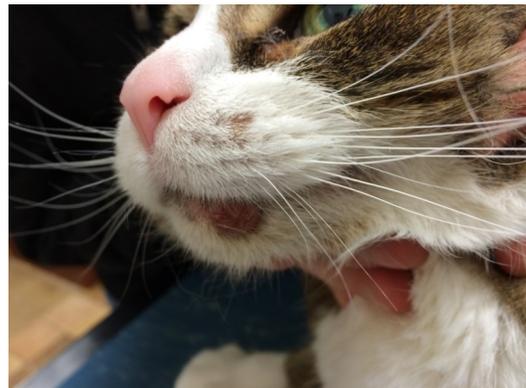


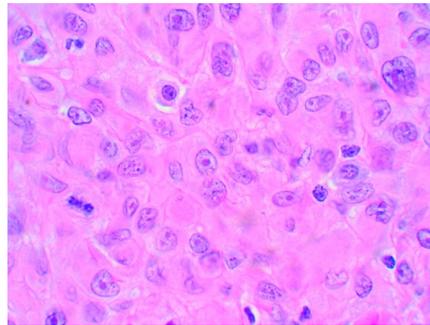
Photo courtesy Dr. Dralle—thanks!

## Histiocytosis (cont)

is a prolonged, indolent course of disease, but lesions may eventually progress to involve internal organs. Later biopsies also tend to have more prominent pleomorphism of cells and these later lesions along with the more widespread systemic involvement have features of disseminated histiocytic sarcoma. In the past, disseminated histiocytic sarcoma was referred to as malignant histiocytosis, but this term has fallen out of favor.

Immunophenotyping reveals the cells are consistent with origin from interstitial dendritic cells which are antigen presenting cells that can be found in a variety of tissues. A variety of histiocytic disorders have been identified, some arising from interstitial dendritic cells, some from Langerhans cells and others from bone marrow derived macrophages.

In cats, another form of histiocytic disorder has been seen in the lungs—feline pulmonary Langerhans cell histiocytosis and, in those cases, immunophenotyping indicates a Langerhans cell origin.



This photo shows the dense infiltrate of round cells in the dermis. Note the larger, atypical cells with larger nuclei and one mitotic figure. With time there tends to be increased pleomorphism and there may eventually be systemic involvement as with histiocytic sarcoma.

Although this disease can have a long clinical course, it generally eventually progresses to disseminated disease.

**References:** Gelberg HB. Diagnostic exercise: Multiple skin nodules in a cat. *Vet Pathol* 50: 569-571, 2013.  
 V.K. Affolter1; P.F. Moore. Feline progressive histiocytosis. *Vet Dermatol.* June 2006;17(3):207.  
 Affolter VK et al. Feline progressive histiocytosis. *Vet Pathol* 43:646-655, 2006.



**Laboratory News -**  
 I have had several requests for cytology services and am currently looking into the practicality of offering cytology of mass aspirates. In order to fine tune the staining in the lab, if you have unstained aspirates of masses you are submitting, the dried slide can be included in the same package as the fixed sample. These will be used to adjust the stain for quality control and there would be no charge to you. Thanks.

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## Have you seen this?



As you can see, there is loss of hair without erythema, ulceration or crusting. The histologic changes in this case included a mixed lymphocytic inflammatory response that was centered on the deeper hair bulbs of the follicles. This pattern is typical of alopecia areata.

Given the photo alone, you would also have to consider other causes of non-inflammatory alopecia such as; dermatophytosis, localized demodicosis, pattern baldness, follicular dysplasia or pseudopelade.

Alopecia areata is suspected to be immune-mediated and is a cosmetic problem that can be relatively mild and that may improve spontaneously. In some dogs the hair loss is permanent while others have responded to immunosuppressive medication. The face or temporal areas are often involved.

Photo Dr. Baldwin—thanks!

Here you see the skin of an 11 year old Basset hound that has multiple, well delineated, patchy areas of alopecia. Any thoughts?

## Ask the Pathologist !

Please send your questions via email—  
[phrowland@verizon.net](mailto:phrowland@verizon.net)

Those of general interest may appear in future issues of Practical Pathology.