

## RATIONALE FOR SELECTION OF THIS CASE:

1. Hematology information of interest was the cat had a manual basophil count of 60 %, a re-gated ProCyte Dx basophil count of 41 % and an Advia 2120 basophil count of 0 %.
2. Histopathology from the cat (euthanatized and a few organs taken) indicated an emerging clinical entity of feline sclerosing eosinophilic fibroplasia. The organ with most severe changes was an abdominal lymph node. Histopatology questions of interest included not only that new diagnosis but consideration of the appearance of basophils on H+E histological sections. Both eosinophils and basophils also have red granules on H+E sections. This brings up the question of how many of the granulocytes with red granules in histological sections of feline sclerosing eosinophilic fibroplasia are eosinophils and how many are basophils? We stained histological sections with various stains and identified the Luna stain as best for differential identification of basophils and eosinophils.

## SIGNALMENT:

A 15 year old house cat had light colored and evil smelling diarrhea for several months. It now was very thin and very hungry. An EDTA blood sample was sent to the University Animal Hospital for evaluation. After receiving the results the cat was euthanatized and some organs were fixed in formalin and sent to the University Animal Hospital for evaluation.

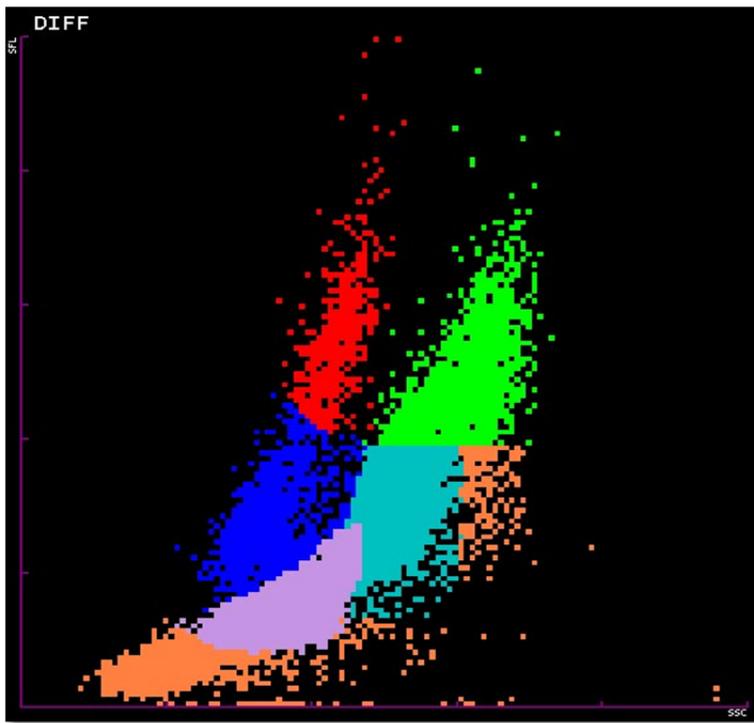
## HEMATOLOGY DATA: Advia Automated Differential WBC Count

Test	Patient	Reference
WBC	22.3 x 10 <sup>9</sup> /L	2.9-17
Neutrophils	4.0 x 10 <sup>9</sup> /L	1.5-10.3
Lymphocytes	1.6 x 10 <sup>9</sup> /L	0.9-6.9
Monocytes	7.7 x 10 <sup>9</sup> /L	0.1-0.7
Eosinophils	6.5 x 10 <sup>9</sup> /L	0.2-1.6
Basophils	0.03 x 10 <sup>9</sup> /L	0-0.2

## ProCyte Dx Automated Differential WBC Count

Test	Patient	Reference
WBC	22.3 x 10 <sup>9</sup> /L	2.9-17
Neutrophils	11.6 x 10 <sup>9</sup> /L	1.5-10.3
Lymphocytes	1.4 x 10 <sup>9</sup> /L	0.9-6.9
Monocytes	0.6 x 10 <sup>9</sup> /L	0.1-0.7
Eosinophils	2.6 x 10 <sup>9</sup> /L	0.2-1.6
Basophils	7.5 x 10 <sup>9</sup> /L	0-0.2

Figure 1 WBC dot plot from the ProCyte Dx



Color code is the red dots are monocytes, dark blue are lymphocytes, violet are neutrophils, light blue are basophils and lime green are eosinophils.

Figure 2

Histological section of an abdominal lymph node from the cat at necropsy.  
H+E stain, original magnification 20 X (2 X objective).

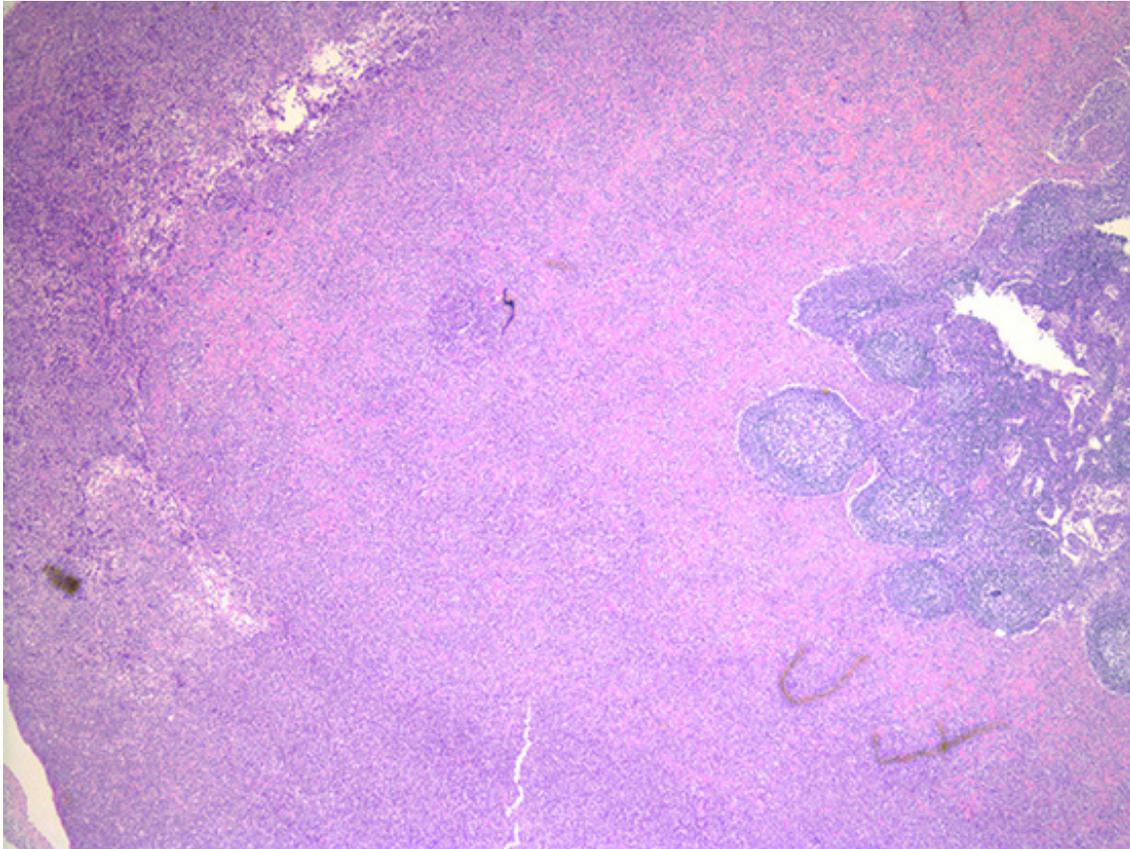
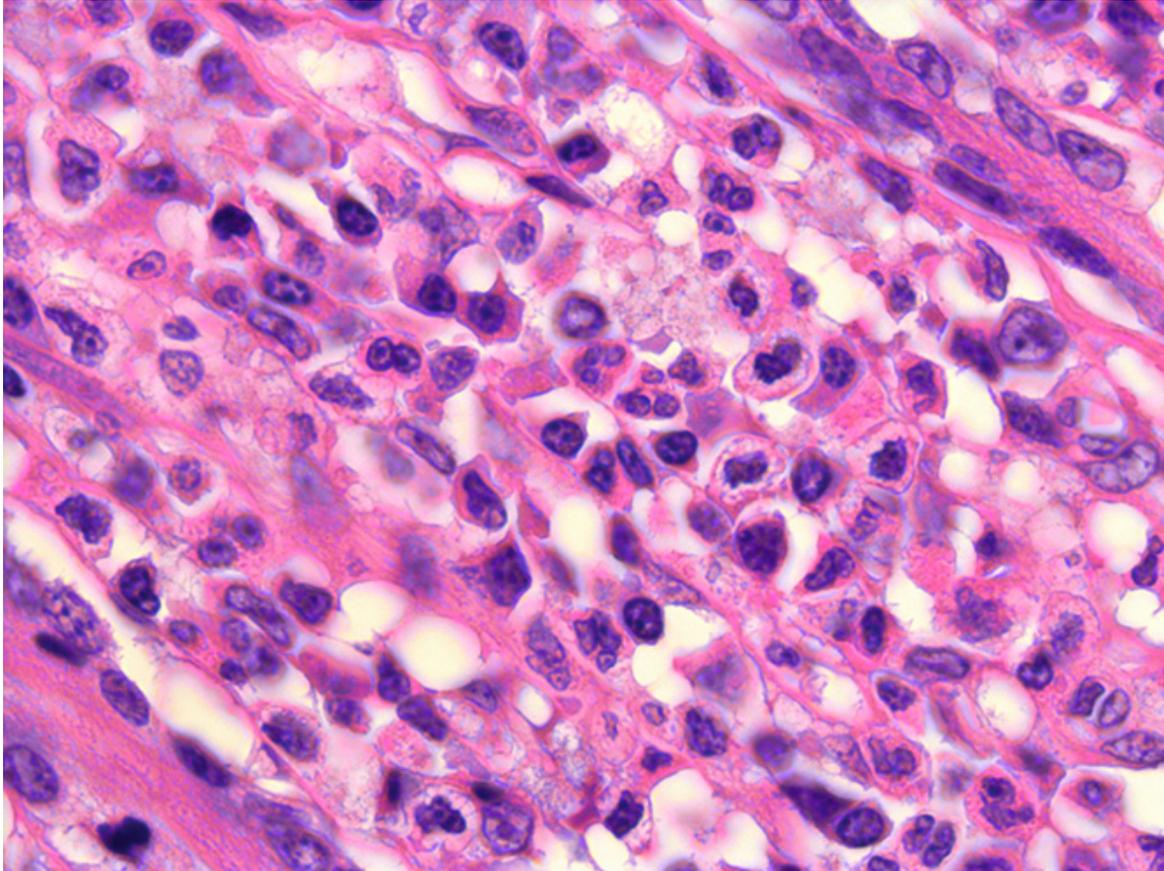


Figure 3

Histological section of intestine from the cat at necropsy.  
H+E stain, original magnification 600 x (60 X objective).



QUESTIONS:

1. How many basophils did the cat have in its blood and what could cause that change?
2. What is the morphological diagnosis of the abdominal lymph node?
3. How many basophils were in the intestinal lesions?