



**DATE PRESENTING CLINICAL SIGNS**

2/11/22  
ADR  
WBC of 233,000 w/ 93 % Lymphs  
Calcium 14.4  
U/S: Mesenteric LN enlargement; Enlarged Spleen and Suspect generalized changes in liver

**INTERPRETED BY**

L.D. McGill, DVM,  
Ph.D, DACVP

**CYTOLOGY SUBMISSION**

Blood smear

**OBSERVATIONS**

Blood smear: Submitted are 4 excellent videos of excellent blood smears collected from Sherman. The blood smears are overwhelmingly represented with large numbers of round cells. These cells are over 90% of the cell population. The round cells are quite large with nuclei that are 2 to 4 times the size of red blood cells. Many of the nuclei have multiple nucleoli and others have irregular nucleoli. The nuclear size and shape is irregular. The cytoplasm is narrow with bluish gray color.

**PATIENT**

Sherman Chamberlain

**SPECIES INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Blood smear - Lymphoblastic leukemia

Canine

**COMMENTS**

The cellularity in these blood smears is classical for lymphoblastic leukemia. This suggests that all of the organs are involved, particularly bone marrow. I suspect that the liver and spleen are involved as well. This cytologically appears to be an aggressive lymphocytic proliferation. Some of the aggressive types of lymphoma will respond to therapy but some will not. If chemotherapy is contemplated, then immunophenotyping of the cells to confirm the specific cell type may be beneficial for prognosis. The slides can be submitted for PCR testing or new slides that are not stained can be submitted for immunocytochemistry staining. Flow cytometry can be beneficial but will require a repeat collection of cells prior to submission to the laboratory. Contacting the laboratory to confirm how to submit flow cytometry samples is encouraged. An unfavorable prognosis is warranted, in my opinion.

**BREED**

Australian Shepherd  
Cross

**SEX**

Male Neutered

**AGE**

11 mo

**WEIGHT**

54 lbs

**HOSPITAL NAME**

Franklin Animal Clinic

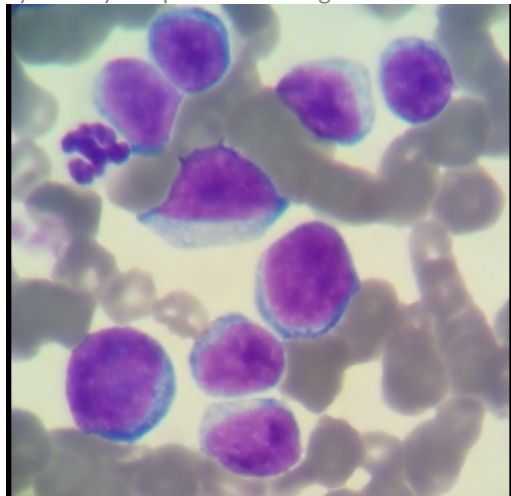


Image shows a representative group of lymphoblasts. Note the variation in size of the nuclei and the prominent nucleoli including multiple nucleoli in some cells.

**REFERRING VET**

Dr. Doverspike

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**INVOICE NUMBER**

669



**DATE** Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

2/11/22

**INTERPRETED BY** L.D. McGill, DVM, Ph.D., DACVP  
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