

Case 13

Vacuolated Lymphocytes in a cat

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Specimen: Peripheral blood, Wright stain.

Signalment: "Zinna", feline, Domestic Shorthair, female, 4 month-old.

History and clinical findings: The cat had a history of progressive fine tremors of the head and hind limbs, unsteady gait and inappropriate falling. Dysmetria and ataxia first became apparent when the cat was 3 week-old and progressed in intensity. Upper motoneuron type of para- or tetraparesis occurred by 3 months of age and was accompanied by dysphagia and difficulty in prehending food. At clinical examination heart rate, respiratory rate and temperature were within normal limits. Abdominal palpation revealed hepatomegaly.

Laboratory data: Whole blood and serum samples were submitted for CBC and a chemistry panel to the Clinical Pathology Laboratory at Auburn University, College of Veterinary Medicine. The CBC revealed a moderate leukocytosis (31,58 cells x 10³/mL, reference interval, RI: 5,5 – 19,5 leukocytes x 10³/mL) consisting of a moderate lymphocytosis (20,527 lymphocytes x 10³/mL, RI: 1,500 – 7,700 lymphocytes x 10³/mL) and a mild normocytic normochromic non regenerative anemia (Hct 27,5%, RI: 30-45%). Biochemical abnormalities included a mild increase in phosphate (6,3 mg/dL, RI: 3,3-5,8 mg/dL) and CK (364 mg/dL, RI: 92-357 mg/dL) and a mild decrease in cholesterol concentration (55 mg/dL, RI: 68-224 mg/dL). The majority of lymphocytes were small to medium-sized cells with round nuclei. The chromatin was clumped and nucleoli were inconspicuous. The cytoplasm was scant to moderate in amount, and contained a variable number of fine to larger distinct vacuoles. Monocytes often contained a variable number of distinct vacuoles.

Figures

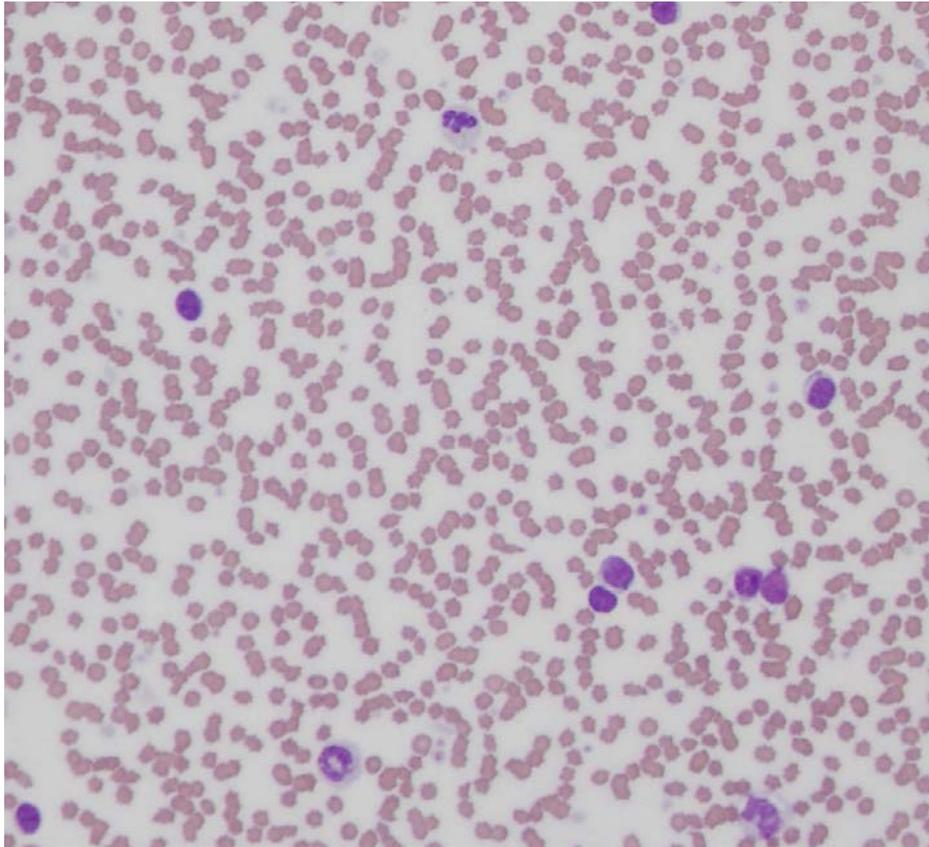


Figure 1: Peripheral blood smear, modified Wright's stain, 40x objective.

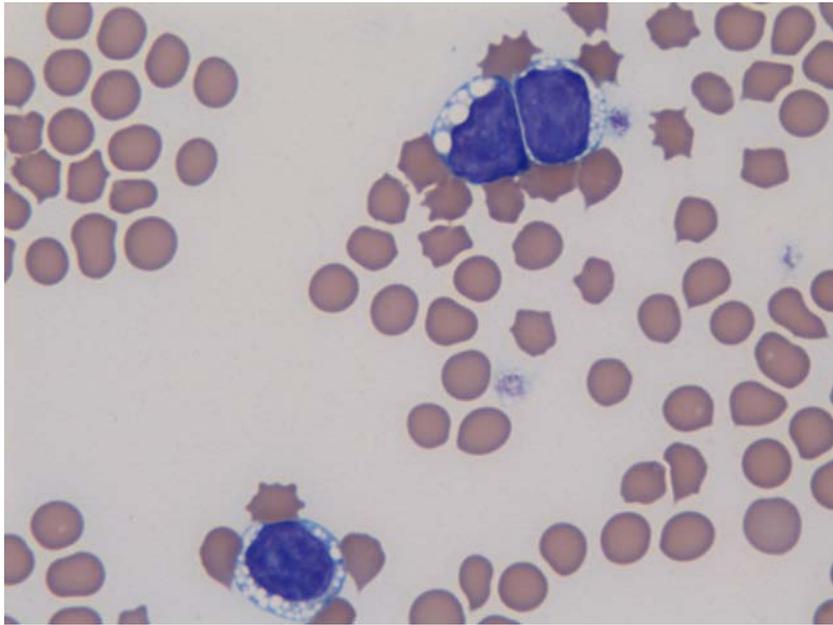


Figure 2: Peripheral blood smear, modified Wright's stain, 100x objective.

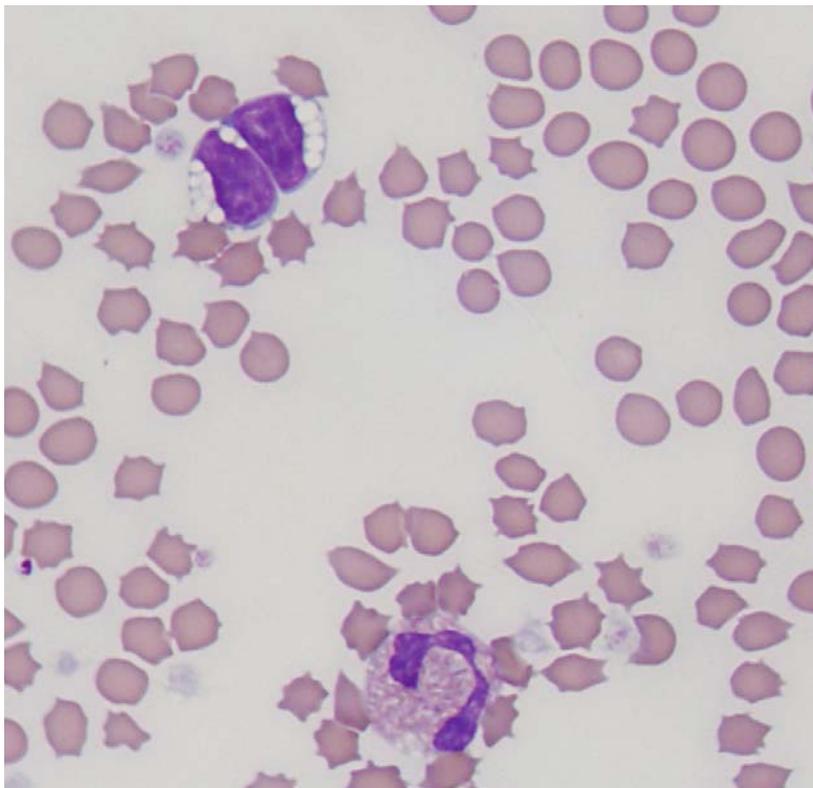


Figure 3: Peripheral blood smear, modified Wright's stain, 100x objective.

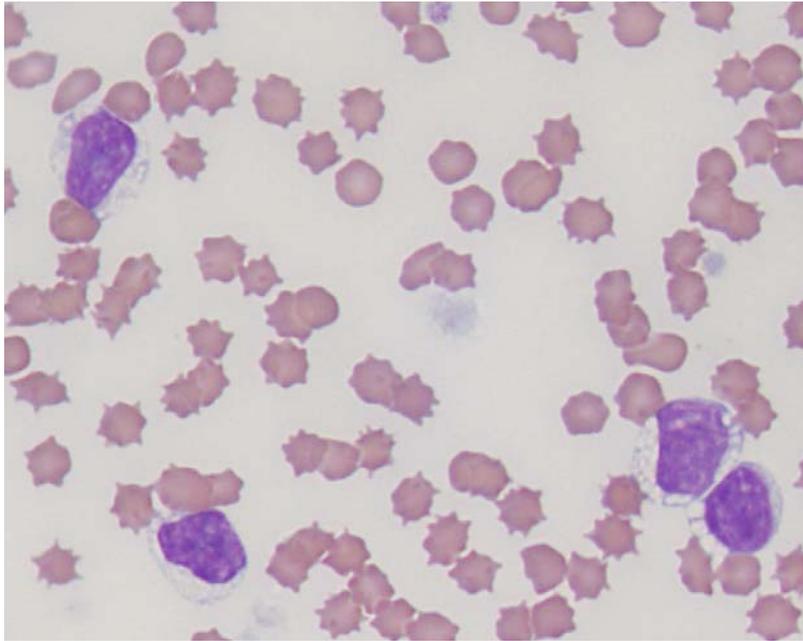


Figure 4: Peripheral blood smear, modified Wright's stain, 100x objective.

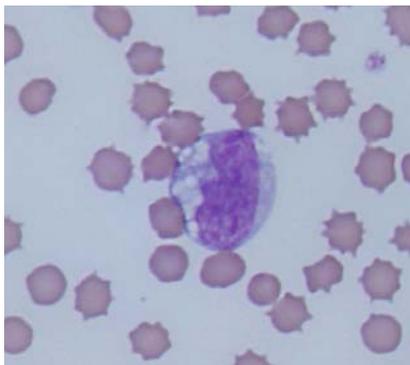


Figure 5,6: Peripheral blood smear, modified Wright's stain, 100x objective.

Questions:

1. What is your diagnosis? What are the differentials that you need to consider?
2. What further diagnostics would you recommend to confirm your diagnosis?