

## **A DOG WITH ABNORMAL LIVER FINDINGS**

### **Contributors**

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## CASE PRESENTATION

**Specimen:** Giemsa-stained imprint smear from surgically excised liver specimens.

**Signalment:** Dog, German shepherd, 8-year-old, intact male.

**History/presenting complaint:** Outdoors lifestyle, incompletely vaccinated, lethargy, anorexia, intermittent vomiting and diarrhea of 5-day duration.

**Clinical signs:** Moderate pain on anterior abdominal palpation, dehydration (7%), halitosis, fever (40.4 °C).

### Clinical Pathology

**Hematology:** Unremarkable

**Buffy coat cytology (1,000 OIF) for Ehrlichia sp., Babesia sp., Hepatozoon canis and Mycoplasma sp.:** negative.

### Serum biochemistry

Parameter	Value	Reference interval
Total proteins (g/dL)	6	6-8
Albumins (g/dL)	<b>2.1</b>	2.5-3.5
Globulins (g/dL)	3.9	3-4.5
Creatinine (mg/dL)	1.4	0.5-1.4
Blood urea (mg/dL)	<b>50</b>	7-30
Glucose (mg/dL)	<b>66</b>	80-130
Total bilirubin (mg/dL)	<b>2.1</b>	0,3-0,8
Alkaline phosphatase (U/L)	<b>1,300</b>	50-210
Alanine aminotransferase (U/L)	<b>160</b>	10-34
Phosphorus (mg/dL)	<b>6.6</b>	2.5-5
Calcium (mg/dL)	9	9-12
Lipase (U/L)	70	5-65
Potassium (mEq/dL)	4	3.5-5.5
Sodium (mEq/dL)	144	144-158

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### ***Urinalysis***

Colour: yellow to brown

Specific gravity: 1.035

Dip stick: unremarkable

UPC: 2.9 (reference range: <0.2)

Sediment: Granular casts: 2/LPF; increased number of epithelial cells,

WBC/RBC:<5/HPF; occasional bilirubin crystals

### **Serology**

IFA for *Leishmania infantum*: negative

ELISA for *Ehrlichia canis*: negative

IFA for *Babesia* sp.: negative

ELISA for *Dirofilaria immitis*: positive (Knott's test for microfilaria: negative)

### **Diagnostic imaging**

Thoracic radiography: unremarkable

Abdominal radiography: moderate splenomegaly and hepatomegaly

Abdominal ultrasound: Confirmation of the radiographic findings.

**Tentative DDx:** Leptospirosis, chronic hepatitis and dirofilariosis (class one).

**Pending serology (MAT) for *Leptospira* sp.:** Hospitalization and institution of supportive and symptomatic treatment consisted of crystalloids, ampicillin, enrofloxacin, ursodeoxycholic acid, ranitidine and sucralfate.

**Short term follow-up:** No clinical and biochemical improvement after 5 days of hospitalization.

**Exploratory celiotomy:** Two wedge liver biopsies were obtained. Imprint smears were made and Giemsa-stained.

**Task:** Evaluate the cytology images (Figures 1 and 2) and give your diagnostic option

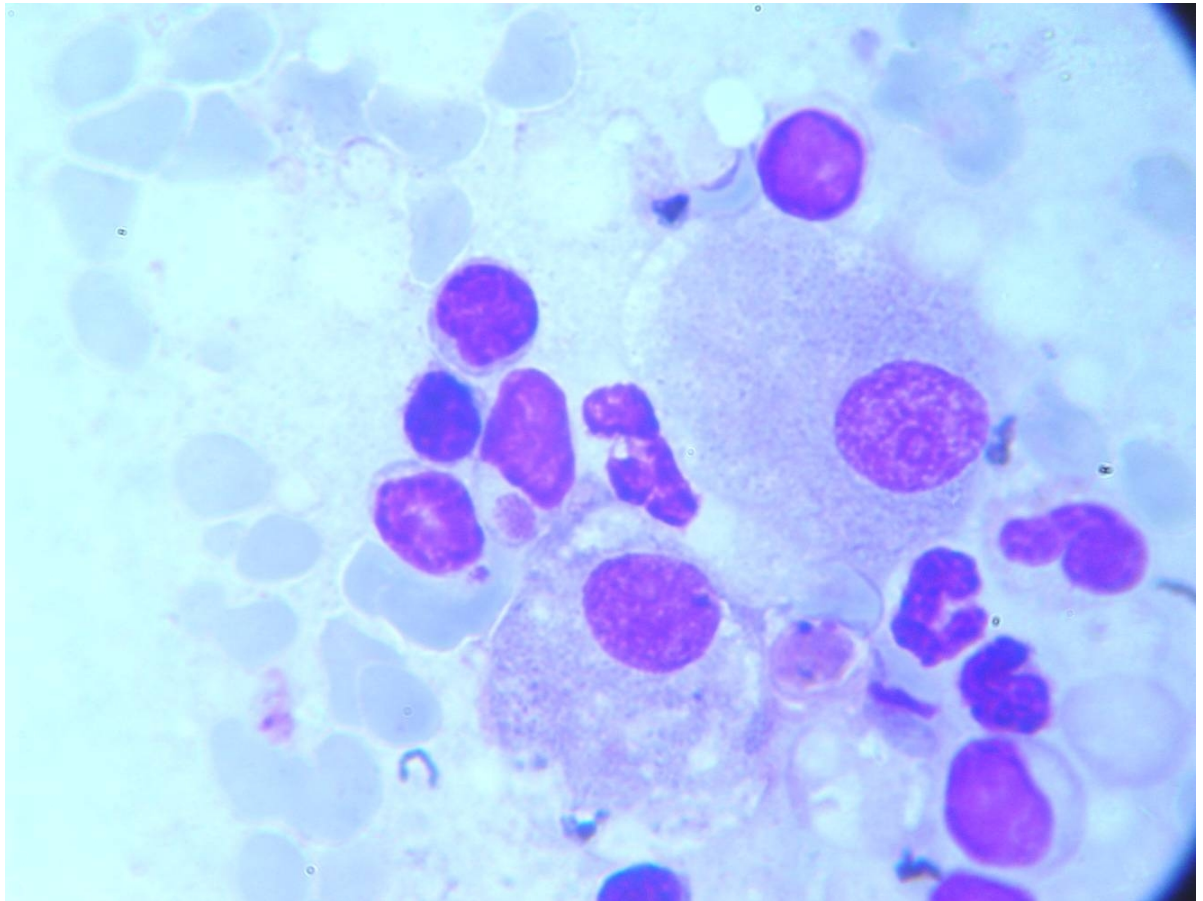


Fig. 1

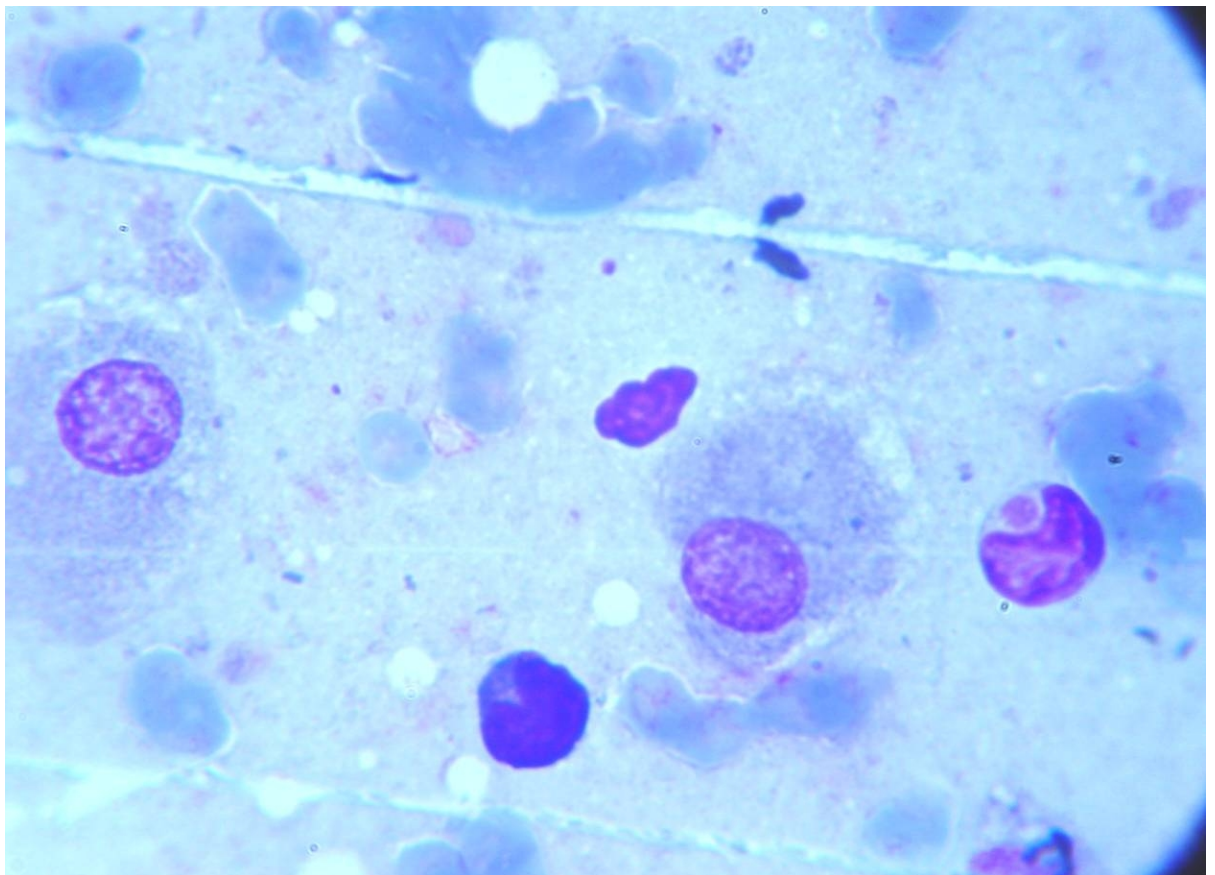


Fig. 2