

Clinical pathology diagnostic challenge: case #6

Signalment: domestic cat, neutered male, 1.4 years old.

History: weakness, weight loss, immunization shots are up to date.

Physical exam observations: thin, ascites noticed during palpation.

CBC results		Clinical chemistry results*	
Hematocrit (0.24-0.45 L/L)	0.30	Glucose (3.8-7.9 mmol/L)	6.8
Hemoglobin (80-150 g/L)	101	BUN (4.1-10.8 mmol/L)	2.6
Erythrocytes ($5.0-10.0 \times 10^{12}$ /L)	9.60	Creatinine (51-180 μ mol/L)	52
MCV (39-55 fL)	40	ALT (16-63 U/L)	36
MCHC (300-360 g/L)	337	Alkaline phosphatase (<50 U/L)	68
Reticulocytes (<1 %)	-	Total protein (59.6-80.8 g/L)	81
Reticulocytes ($<60\,000 \times 10^6$ /L)	-	Albumin (26.0-39.0 g/L)	17.5
Platelets ($300-700 \times 10^9$ /L)	344	Globulins (29.0-47.0 g/L)	63.5
Plasma protein (60-80 g/L)	80	Calcium (2.17-2.86 mmol/L)	2.19
Leukocytes ($5.5-19.5 \times 10^9$ /L)	4.0	Phosphorus (0.96-1.96 mmol/L)	1.37
Neutrophils (mature) ($2.5-12.5 \times 10^9$ /L)	3.5	Potassium (3.60-5.30 mmol/L)	4.58
Neutrophils (band) ($0-0.3 \times 10^9$ /L)	0	Sodium (145-158 mmol/L)	129.5
Lymphocytes ($1.5-7.0 \times 10^9$ /L)	0.4	Chloride (110-125 mmol/L)	98.4
Monocytes ($<0.8 \times 10^9$ /L)	0.1	Total CO ₂ (14-24 mmol/L)	14.1
Eosinophils ($0-1.3 \times 10^9$ /L)	0	Anion Gap (10-27 mmol/L)	21.58
Basophils ($0 - \text{rare} \times 10^9$ /L)	0		

* Serum appearance: icterus 2+

Cytology (Abdominal tap)

Appearance	clear yellow fluid
Proteins	61 g/L
Leukocytes	0.22×10^9 /L

Using the laboratory changes, submit a differential diagnosis and justify it (pathophysiology).

If needed list other possible tests to confirm your diagnosis.