

## Clinical pathology diagnostic challenge : case #25

**Signalment:** 9 year old, neutered, male domestic cat.

**History:** lameness (dropped hock) observed for 5 days, total anorexia noticed 3 days ago, vomiting.

**Physical exam observations:** dehydration 7%, weakness; fluid therapy done before blood tests.

CBC results		Clinical chemistry results*	
Hematocrit (0.24-0.45 L/L)	0.23	Glucose (3.8-7.9 mmol/L)	21
Hemoglobin (80-150 g/L)	84	BUN (4.1-10.8 mmol/L)	9.6
Erythrocytes (5.0-10.0 x 10 <sup>12</sup> /L)	5.13	Creatinine (51-180 µmol/L)	105
MCV (39-55 fL)	45	ALT (16-63 U/L)	521
MCHC (300-360 g/L)	365	Alkaline phosphatase (<50 U/L)	94
Reticulocytes (%)	2	Total protein (59.6-80.8 g/L)	65.9
Reticulocytes ( x 10 <sup>6</sup> /L)	102 600	Albumin (26.0-39.0 g/L)	38.6
Platelets (300-700 x 10 <sup>9</sup> /L)	347	Globulins (29.0-47.0 g/L)	27.3
Plasma protein (60-80 g/L)	69	Calcium (2.17-2.86 mmol/L)	2.46
Leukocytes (5.5-19.5 x 10 <sup>9</sup> /L)	8.0	Phosphorus (0.96-1.96 mmol/L)	1.46
Neutrophils (mature) (2.5-12.5 x 10 <sup>9</sup> /L)	5.3	Potassium (3.60-5.30 mmol/L)	2.7
Neutrophils (band) (0-0.3 x 10 <sup>9</sup> /L)	0	Sodium (145-158 mmol/L)	139.7
Lymphocytes (1.5-7.0 x 10 <sup>9</sup> /L)	1.8	Chloride (110-125 mmol/L)	83.9
Monocytes (<0.8 x 10 <sup>9</sup> /L)	0.7	Total CO <sub>2</sub> (14-24 mmol/L)	12.6
Eosinophils (0-1.3 x 10 <sup>9</sup> /L)	0.2	Anion Gap (10-27 mmol/L)	45.9
Basophils (0 - rare x 10 <sup>9</sup> /L)	0.1		

\* Lipemia and icterus noted in the serum.

### Other tests

#### Urinalysis (cystocentesis)

Color	Yellow
Turbidity	2+
Specific gravity	1.031
pH	5.5
Proteins	0.3 g/L
Glucose	14 mmol/L
Ketone bodies	2+
Bilirubin	2+
Blood	250 Ery/m L

Using the laboratory changes, submit a differential diagnosis and justify it (pathophysiology). If needed list other possible tests to confirm your diagnosis.