

Clinical pathology diagnostic challenge : case #27

Signalment: 7 year old male St-Bernard dog.

History: cough and exercise intolerance.

Physical exam observations: tachycardia, abnormal respiratory sounds.

CBC results

Hematocrit (0.37-0.55 L/L)	0.48
Hemoglobin (120-180 g/L)	159
Erythrocytes ($5.5-8.5 \times 10^{12}$ /L)	6.65
MCV (60-77 fL)	72
MCHC (320-360 g/L)	331
Reticulocytes (<1 %)	-
Reticulocytes ($<60\,000 \times 10^6$ /L)	-
Platelets ($200-900 \times 10^9$ /L)	adequate
Plasma protein (60-80 g/L)	73
Leukocytes ($6.0-17.0 \times 10^9$ /L)	11.4
Neutrophils (mature) ($3.0-11.5 \times 10^9$ /L)	8.8
Neutrophils (band) ($0-0.3 \times 10^9$ /L)	0
Lymphocytes ($1.0-4.8 \times 10^9$ /L)	0.8
Monocytes ($<1.4 \times 10^9$ /L)	0.3
Eosinophils ($0.1-1.3 \times 10^9$ /L)	1.5
Basophils (0 - rare $\times 10^9$ /L)	0

Clinical chemistry results

No clinical chemistry was requested in this case.

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