

Lymphocytosis in a horse

Cian F ¹, Tyner G ², Martini V ³, Comazzi S ³, Archer J ¹

¹ Department of Veterinary Medicine, University of Cambridge, UK

² Chiltern Equine Clinic, Chalfont St Giles, UK

³ Department of Veterinary Pathology, University of Milan, Italy

Signalment:

Horse, Irish Draft mare, 16 years old

History:

The horse was admitted to the Chiltern Equine Clinic for an annual health check.

Clinical findings:

Clinical examination revealed normal vital parameters, excellent body condition with normal appetite and no history of recent weight loss. Mild/moderate generalized lymphadenomegaly was identified.

Diagnostic procedures:

On ultrasound, palpable lymph nodes appeared enlarged, with a hyperechoic, homogeneous texture. Rectal palpation and trans-rectal ultrasonography revealed prominent mesenteric lymph nodes. Transcutaneous abdominal ultrasonographic evaluation was unremarkable.

Haematology and biochemistry, fine needle aspirations of regional lymph nodes and a bone marrow aspirate were performed. Results are shown below.

Hematology:

	Value	Reference interval
WBC	63.06 x 10 ⁹ / L	5.40 - 14.30
Neutrophils	2.6 10 ⁹ / L	2.3 – 8.9
Lymphocytes	58.2 10 ⁹ / L	1.5 – 7.7
Monocytes	2.0 10 ⁹ / L	0.0 – 1.5
Eosinophils	0.2 x 10 ⁹ / L	0.7 - 4.9
Basophils	0.1 x 10 ⁹ / L	0.0 - 0.3
RBC	6.04 x 10 ¹² / L	5.50 - 9.50
Hb	10.30 g / dl	8.00 - 14.00
HCT	0.298 L / L	0.275 - 0.450
MCV	49 fl	37 – 59
MCH	17.1 pg	12.3 - 19.7
MCHC	35 g / dl	40 - 46.7
Platelets	253 x 10 ⁹ / L	100-350
PCV (spun)	28 %	24 – 44
Plasma protein	65 g / L	60 – 80
Fibrinogen	4 g / L	1 – 4

Biochemistry:

	Value	Reference interval
Sodium	139 mmol / L	135 – 155
Potassium	6.3 mmol / L	2.7 -5.5
Chloride	96 mmol / L	98 – 106
Total CO2 (bicarbonate)	36 mmol / L	14 – 36
Na : K ratio	22	> 27
Anion Gap	13	11 – 25
Urea	5.6 mmol / L	3.3 – 6.7
Creatinine	122 mmol / L	77 – 145
Glucose	<0.6 mmol / L	3.4 – 6.4
Total protein	75 g / L	55 – 75
Albumin	36 g / L	25 – 50
Globulin	39 g / L	17 – 35
Albumin : Globulin ratio	0.9	0.8 – 2.0
Calcium	3.43 mmol / L	2.50 – 3.50
Phosphate	1.18 mmol / L	0.90 – 1.60
AST	343 IU / L	183 – 497
CK	200 IU / L	113 – 333
ALP	294 IU / L	153 – 311
GGT	35.2 IU / L	< 50.0
GLDH	1.4 U / L	2.7 – 14.1
Bile acids	3 μ m / L	2 – 53
Total bilirubin	19.8 μ m / L	0.0 – 34.0
Direct bilirubin	6.6 μ m / L	< 7.0

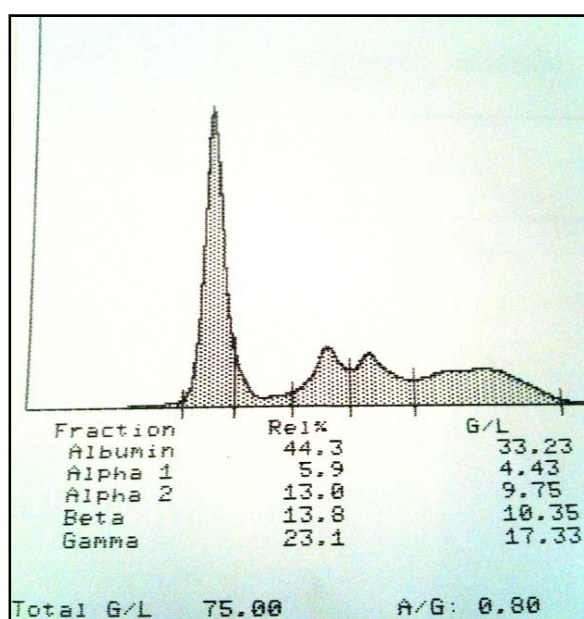


Fig. 1 Serum protein electrophoresis

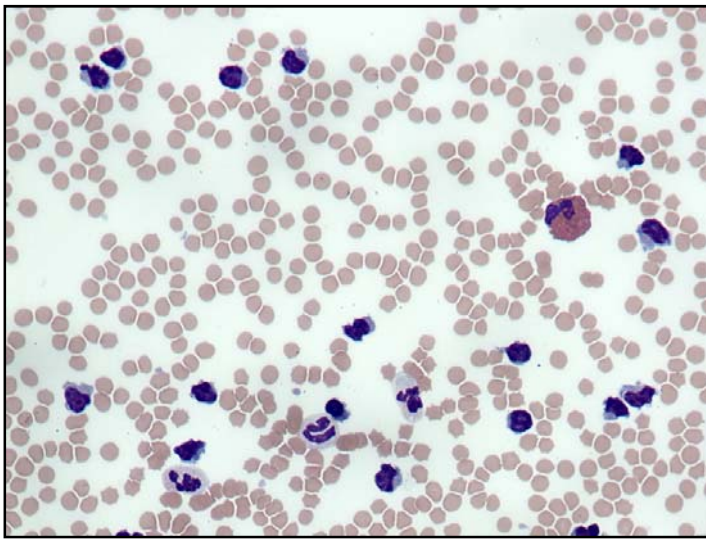


Fig.2 Peripheral blood smear, May-Grunwald Giemsa stained, x20

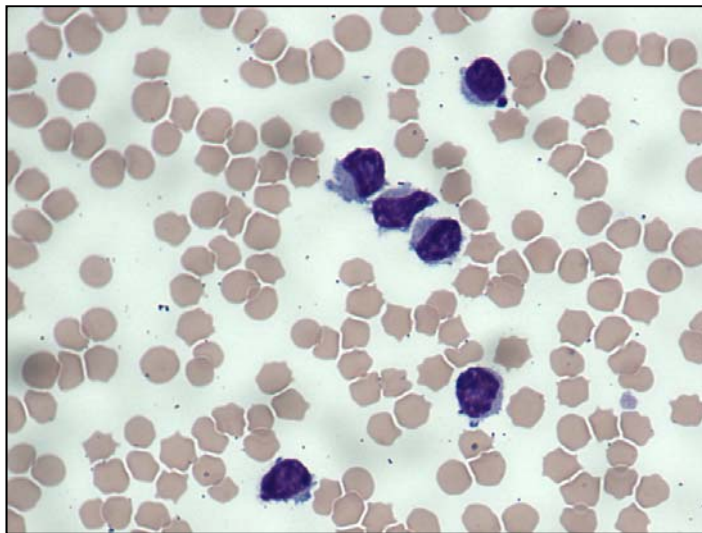


Fig.3 Peripheral blood smear, May-Grunwald Giemsa stained, x50

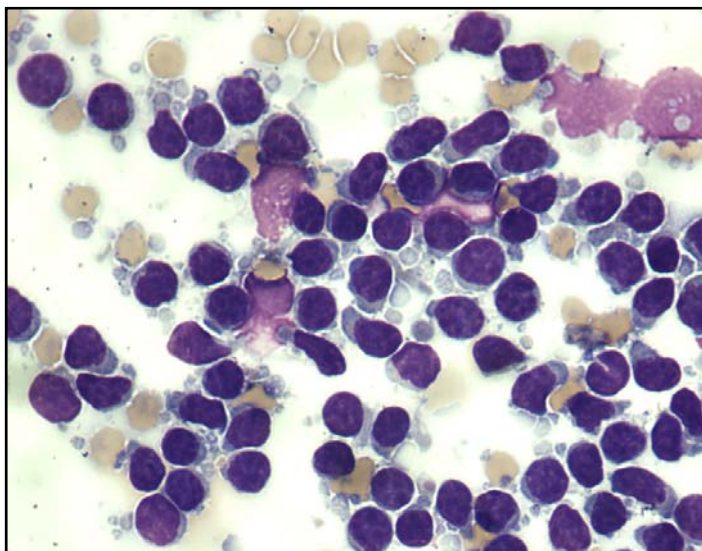


Fig. 4 Lymph node (FNA), May-Grunwald Giemsa stained, x50

Questions:

1. What are your main differential diagnoses?
2. Which further tests would you suggest to confirm your diagnosis?