

THROMBOCYTOPENIA IN A YOUNG DOG

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Specimen: History, laboratory data and photomicrographs of blood, spleen and bone marrow.

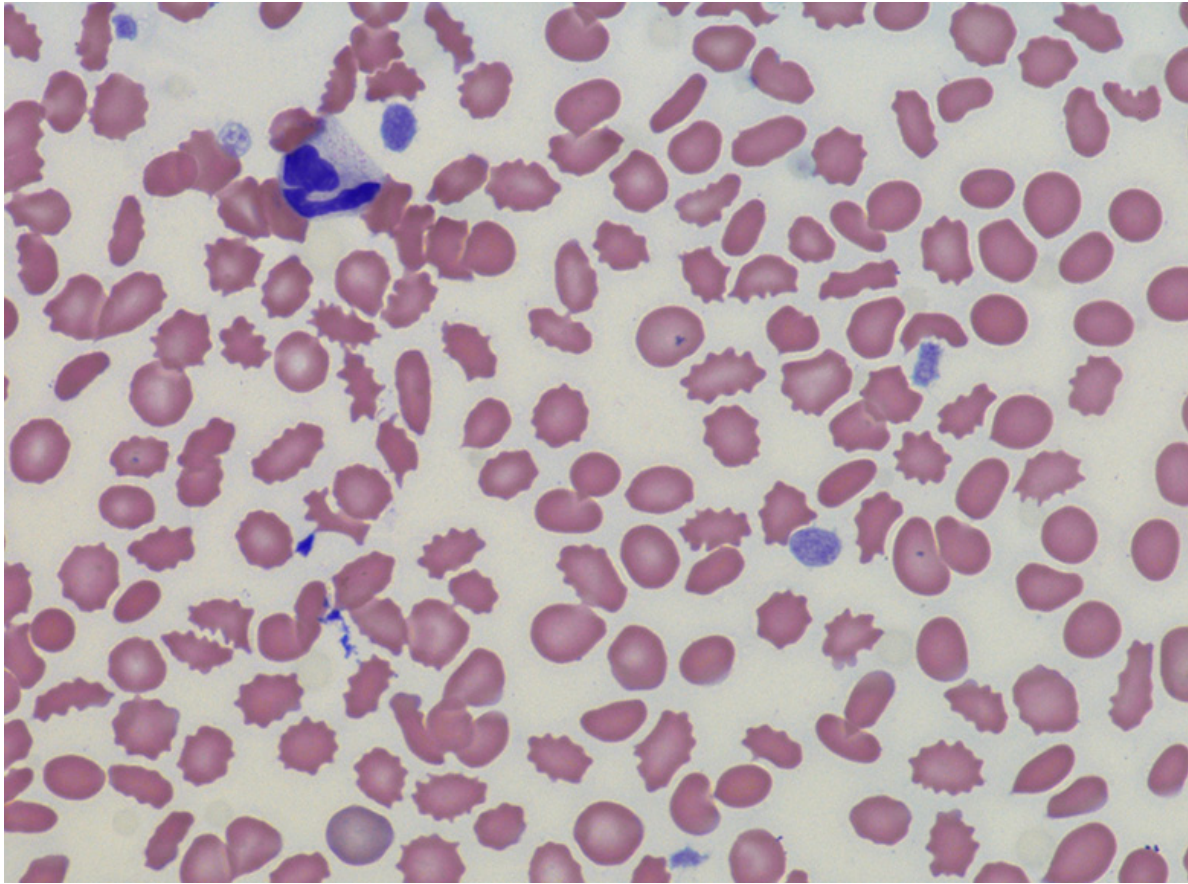
Signalment:

We received FNA of the spleen, bone marrow aspirate and a blood smear from a 4 year old intact male German Shepard dog on April 12. It had chronic weight loss, loose stools and a very good appetite in February. It then had mild anemia (hemoglobin 123 g/L, RI 150-190) and moderate thrombocytopenia (PLT $91 \times 10^9/L$, RI 150-500) and a very large spleen. SNAP test was positive for *Borrelia* and *Anaplasma* in March. It was treated with Ronaxan (doxycycline) for 14 days. It still had thrombocytopenia but not anemia and had no diarrhea then. In April it had splenomegaly, thromobocytopenia and prominent poikilocytosis. Fine needle aspirates of spleen and bone marrow and a blood smear were submitted for diagnosis.

Table 1 Sysmex XT 2000 I V automated results April 12

Analysis	Patient	Reference values
RBC	$7.4 \times 10^{12}/L$	5.1-7.6
Hgb	153 g/L	124-192
Hct	0.46 L/L	0.35-0.52
MCV	59 fl	60-71
MCHC	352 g/L	344-381
Reticulocytes	0.9 %	0.3-2.4
Reticulocytes	$68 \times 10^9/L$	19-150
PLT	$68 \times 10^9/L$	108-562
WBC	$8.8 \times 10^9/L$	5.6-20.4
Neutrophils	$7.5 \times 10^9/L$	2.9-13.6
Lymphocytes	$3.3 \times 10^9/L$	1.1-5.3
Eosinophils	$1.2 \times 10^9/L$	0.1-1.2
Monocytes	$0.8 \times 10^9/L$	0.2-1.1
MPV	Not reported	9.1-12.7

Figure 1 Blood smear appearance.



Questions

1. What cytological findings can explain a thrombocytopenia?
2. What can be concluded about the erythroid cells?
3. What type etiology may be suggested?

Figure 2 FNA spleen

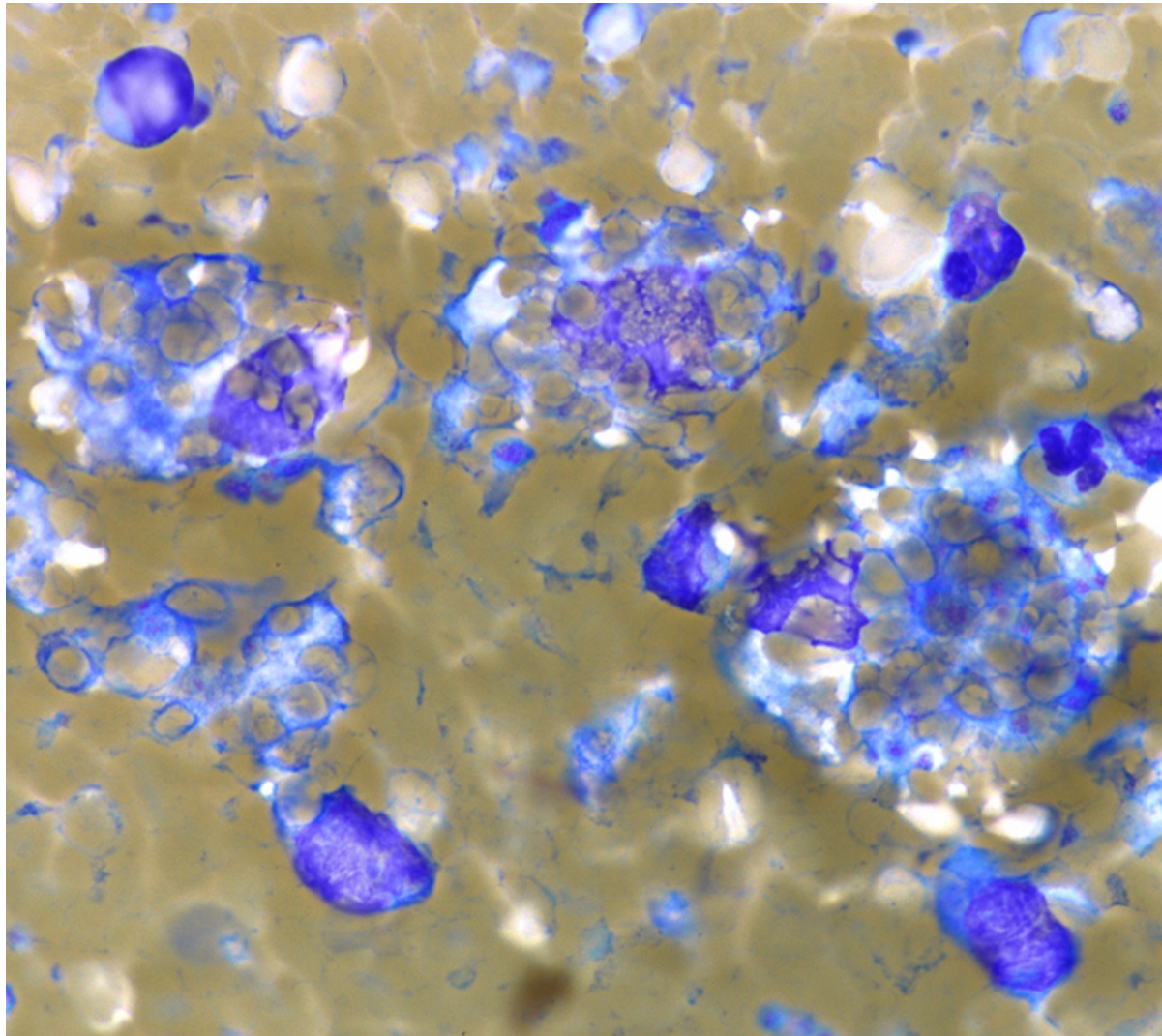


Figure 3 FNA spleen

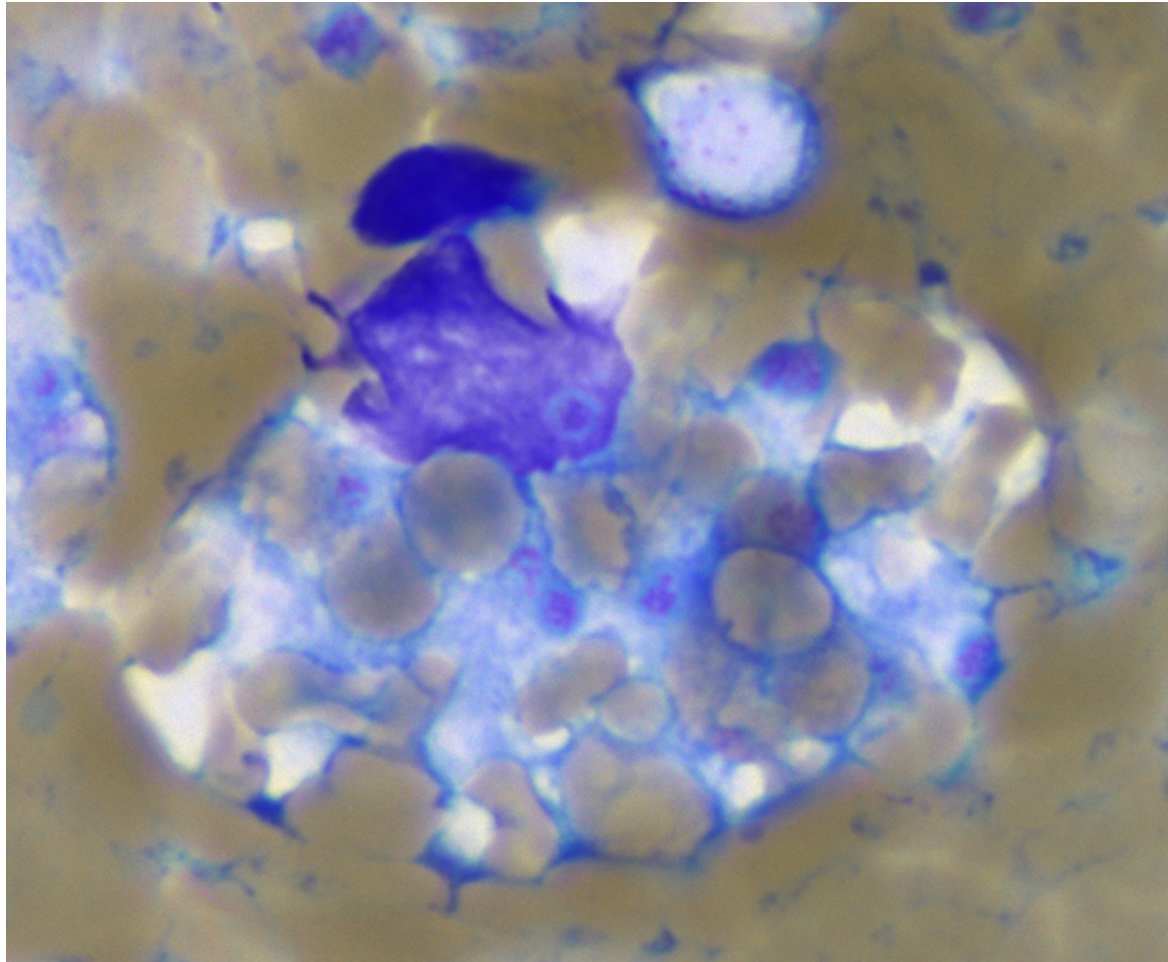


Figure 4 FNA spleen

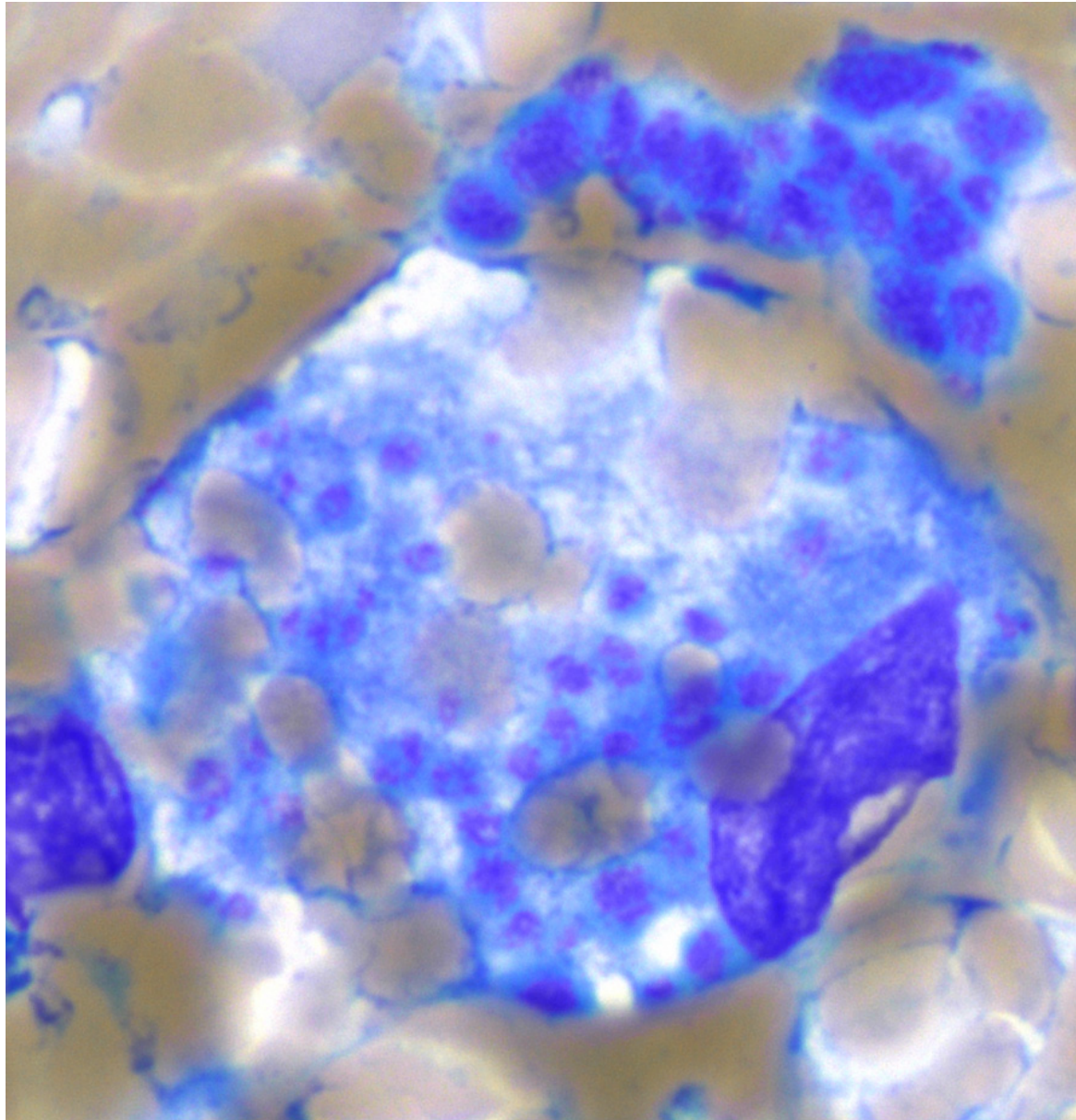


Figure 5 FNA bone marrow aspirate

Bone marrow particles had normal to increased cellularity. M:E ratio was about 1.0. There was 16 % lymphocytes and plasma cells.

