



Hematology Immunology

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Chief Complaint

“Fly ” is a 7 year old spayed female Old English Sheepdog with a history of anorexia, lethargy, weakness and bloody urine.

Fly



History

- Very weak
- Collapsed on the floor this morning
- Not eating well the past few days
- Vaccinated for DA2PVP and Rabies 30 days ago.

Physical Examination

- 8 % dehydration
- Temperature 40 degrees C
- Tachycardia – HR – 180 BPM
- Mucosal and cutaneous petechiae and hemorrhage
- Pale mucous membranes
- Hematuria

Petechial Hemorrhages (small red hemorrhages on the gums)



Problem List

- Weakness /Lethargy
- Anorexia
- Hematuria
- Dehydration
- Pale mucous membranes
- Petechial hemorrhages
- Febrile

Rule Outs

- List all the Possible Diagnoses
- *This list is your Rule Out list*

Rule Outs

- Immune Mediated Thrombocytopenia
- Hemorrhage – Rodenticide toxicity
- Infectious disease: ehrlichiosis, leptospirosis
- Neoplasms – Hemangiosarcoma
- Immune Mediated Hemolytic Anemia

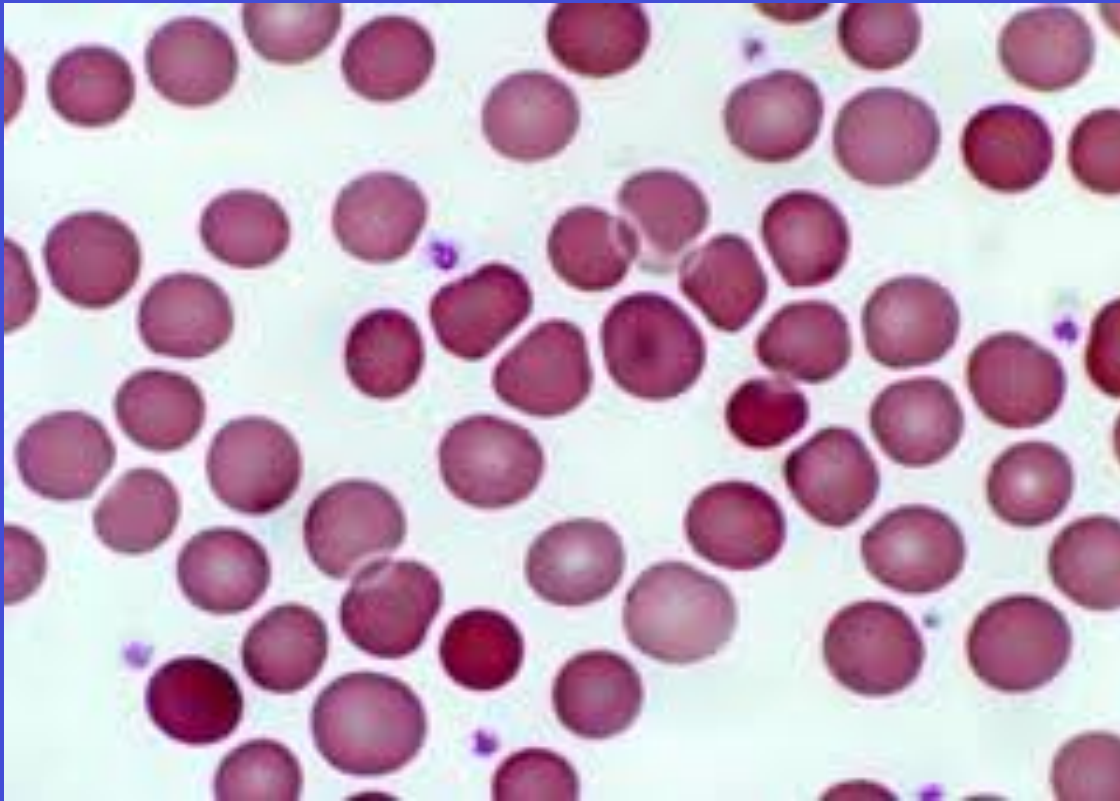
The Plan

- What is your PLAN ?

Plan

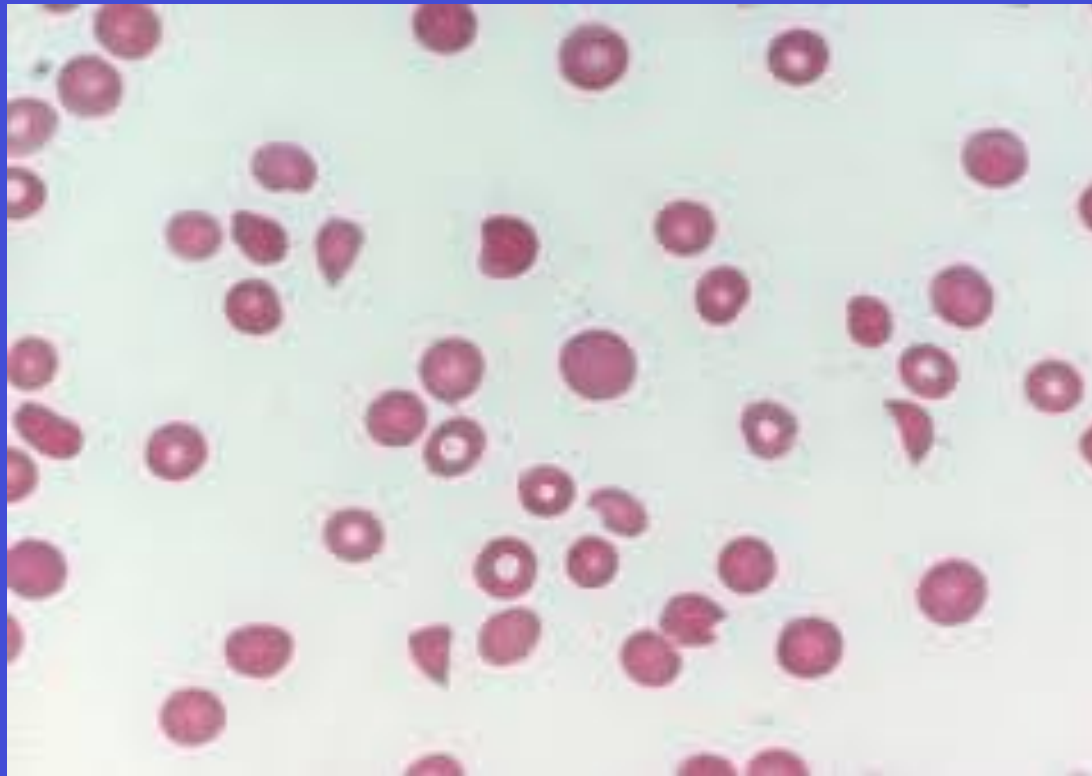
- CBC
- Serum Blood Chemistry
- Urinalysis

Blood Smear – Normal

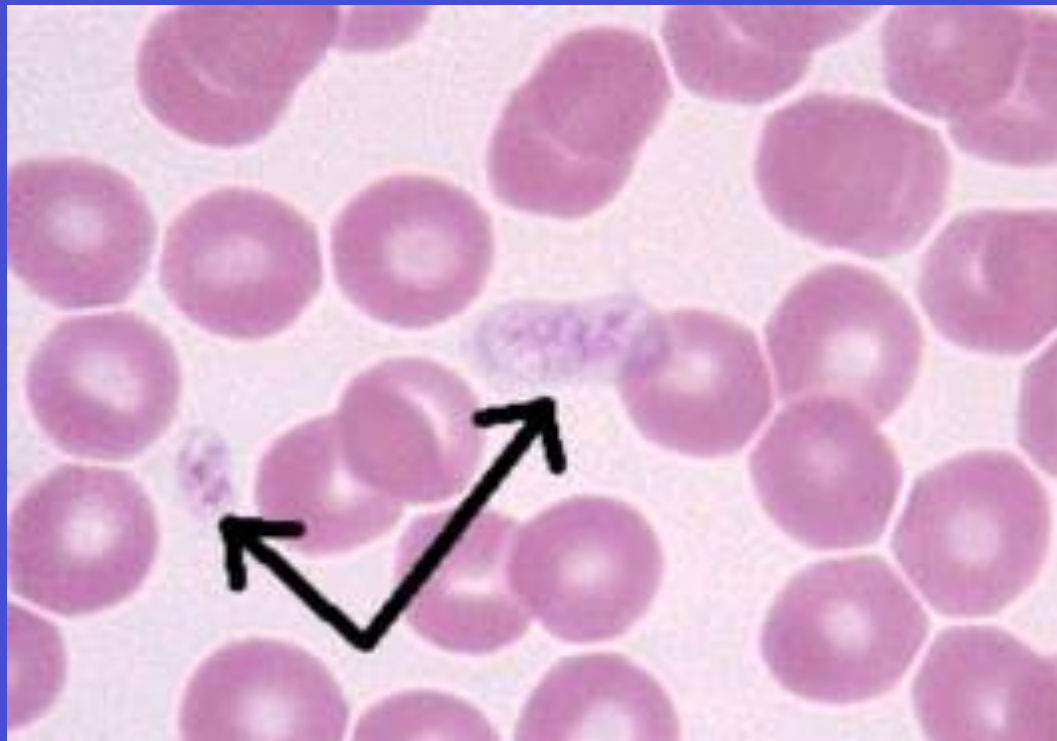


Blood Smear from Fly

What do you see?



Platelets – high power



CBC/Chemistry/Urinalysis

- PCV – 25 (37-55)
- RBC – 3.5×10^3 (5.5 – 8.5)
- WBC- 22×10^3 (6-17)
- Platelets 1 platelets per 100 x field (>7 hpf)
- Platelets - 30,000 /u/L (200,000)
- Reticulocytes - increased
- U/A – hematuria, no WBC or bacteria

Assessment of the Lab Findings

- Assessment of the Lab Findings?

Assessment of the Lab Findings

- Low PCV and RBC – anemia
- Low Platelets
- Inflammatory response - increase WBC
- Increased Reticulocytes – blood regeneration
- Hematuria without WBC – Bleeding without inflammation or infection.

Rule Outs

- After reviewing the clinical signs and Laboratory Findings what is the most likely diagnosis
- Give reasons for you answers

Rule Outs

- Immune Mediated Thrombocytopenia
- Anemia: low RBC and Low PCV
- Low Platelets
- Bleeding – Blood loss
- Blood in urine without an inflammation or infection

Treatment

- Aggressive IV Fluid Therapy – LRS
- Blood Transfusion – if PCV below 20
- Corticosteroids – Prednisone
- Other Immunosuppressive drugs – Cyclophosphamide , Azathioprine ??
- Romiphostim – increases platelet production
- Vincristine

Prognosis?

- What is the prognosis in IMT?

Prognosis?

- Fair
- 50% of dogs only experience one episode
- Mortality rate in approx. 30%



The End















