

Blood Formed Elements Report (52 Items)

No.: 251224001

Sample type: Blood(1x) Pet name: Yy

Species: Cat

Gender:

L I S :

Doctor:

Owner:

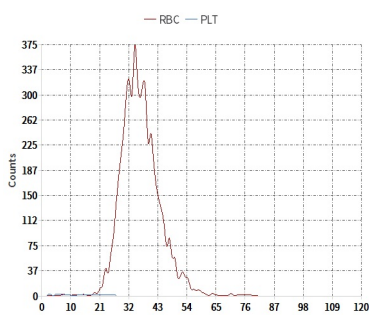
Pet age: Y M

Weight: kg

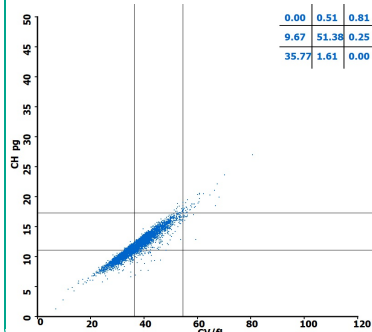
Parameters

Detection items	Result	Unit	Reference	Low	Normal	High
1.WBC#(WBC)	142.72	10 ³ /uL	3.5-17.9			
1-1.Neutrophils Count(NEU#)	37.14	10 ³ /uL	2.3-12.58			
1-2.Band Neutrophils Count(NST#)	2.18	10 ³ /uL	0-0.8			
1-3.Segmented Neutrophils Count(NSG#)	34.80	10 ³ /uL	2.3-12.5			
1-4.Hypersegmented Neutrophils Count(NSH#)	0.15	10 ³ /uL	0-1			
1-5.Lymphocytes Count(LYM#)	80.95	10 ³ /uL	0.73-6.6			
1-6.Small Lymphocytes Count(SLYM#)	68.85	10 ³ /uL	0.73-6.6			
1-7.Large Lymphocytes Count(LLYM#)	12.10	10 ³ /uL	0-0			
1-8.Monocytes Count(MON#)	22.22	10 ³ /uL	0-0.9			
1-9.Eosinophils Count(EOS#)	0.45	10 ³ /uL	0-1.2			
1-10.Basophils Count(BAS#)	1.21	10 ³ /uL	0-0.12			
1-11.Neu%(NEU%)	26.02	%	38-80			
1-12.Band%(NST/WBC)	1.53	%	0-10			
1-13.Band%(NST/NEU)	5.88	%	0-15			
1-14.Hyperseg%(NSH/WBC)	0.11	%	0-10			
1-15.Hyperseg%(NSH/NEU)	0.41	%	0-15			
1-16.Lym%(LYM%)	56.72	%	20-50			
1-17.Mon%(MON%)	15.57	%	1-7.2			
1-18.Eos%(EOS%)	0.32	%	1-11.2			
1-19.Bas%(BAS%)	0.84	%	0-0.2			
1-20.Atypical WBC Count(AWBC#)	0.68	10 ³ /uL	0-0			
2.RBC#(RBC)	3.60	10 ⁶ /uL	5.6-12.6			
2-1.Hemoglobin(HGB)	4.26	g/dL	9.8-17.8			
2-2.Hematocrit(HCT)	13.54	%	26-47			
2-3.Mean Corpuscular Volume(MCV)	37.66	fL	38.7-52.5			
2-4.Mean Corpuscular Hemoglobin(MCH)	11.85	pg	11.8-16.5			
2-5.Mean Corpuscular Hb Conc.(MCHC)	31.48	g/dL	28-38			
2-6.Red Cell Distribution Width - SD(RDW-SD)	22.00	fL	16-31.9			
2-7.Red Cell Distribution Width - SD(RDW-CV)	17.49	%	15.5-24.2			
2-8.Hb Distribution Width - SD(HDW-SD)	0.80	g/dL	0.58-0.98			
2-9.Hb Distribution Width - SD(HDW-CV)	18.20	%	13.2-23			
2-10.Reticulocytes Count(RET#)	0.00	10 ³ /uL	0-9.6			
2-11.Reticulocytes%(RET%)	0.00	%	0-0.15			
2-12.Nucleated RBC Count(NRBC#)	0.45	10 ³ /uL	0-0			
2-13.NRBC%(NRBC/WBC)	0.32	%	0-0			
2-14.Ghost Cells Count(ETG#)	425.44	10 ³ /uL	0-60			
2-15.Ghost Cells%(ETG%)	11.83	%	0-2.5			
2-16.Spherocytes Count(SPH#)	8.15	10 ³ /uL	0-193.66			
2-17.Spherocytes%(SPH%)	0.23	%	0-2.71			
2-18.Acanthocytes Count(ACA#)	0.00	10 ³ /uL	0-0			
2-19.RBC Clump Count(AGG#)	0.00	10 ³ /uL	0-0.15			
2-20.Heinz Bodies Count(HEB#)	3.15	10 ³ /uL	0-0			
2-21.Heinz Bodies%(HEB%)	0.09	%	0-0			
3.Total Platelets Count(EPLT)	45.00	10 ³ /uL	140-547			
3-1.Platelets Count(PLT#)	8.67	10 ³ /uL	140-547			
3-2.Platelets Clump Count(APLT#)	0.36	10 ³ /uL	0-0.15			
3-3.Plateletcrit(PCT)	0.04	%	0.2-0.8			
3-4.Mean Platelets Volume(MPV)	9.83	fL	8.2-21.3			
3-5.Large Platelets Count(LPLT#)	0.58	10 ³ /uL	0-103			
3-6.Large Platelets Percentage(LPLT/EPLT)	1.28	%	0-30			
3-7.Platelets Distribution Width - SD(PDW-SD)	10.00	fL	7.1-31.1			
3-8.Platelets Distribution Width - SD(PDW-CV)	77.41	%	43.7-73.4			

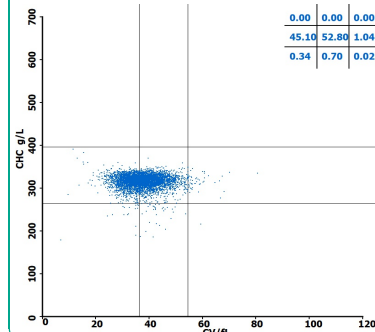
PLT-RBC



CH-CV



CHC-CV



Blood Morphology Report

No.: 251224001

Sample type: Blood(1x)

Pet name: Yy

Species: Cat

Gender:

LIS:

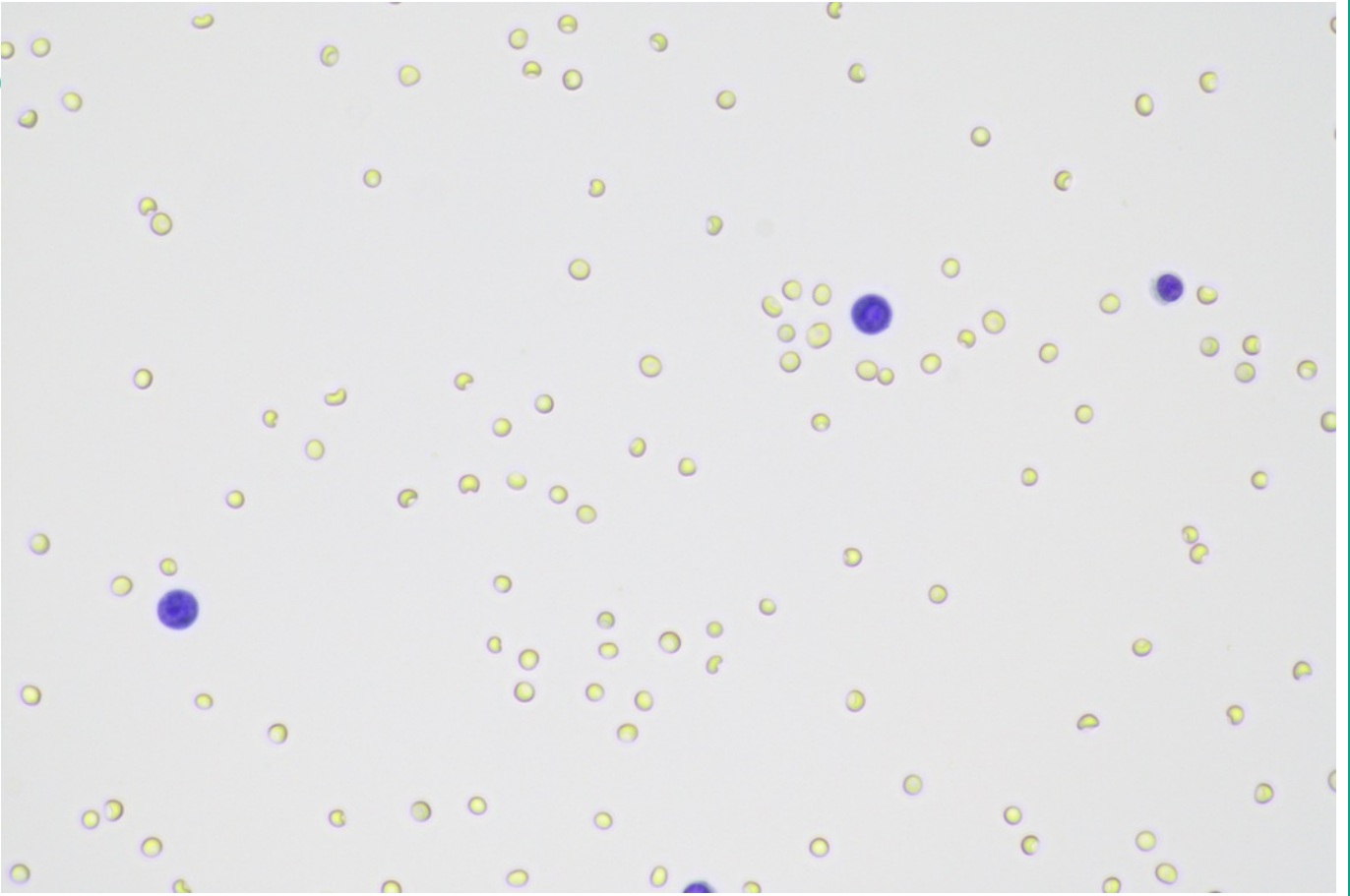
Doctor:

Owner:

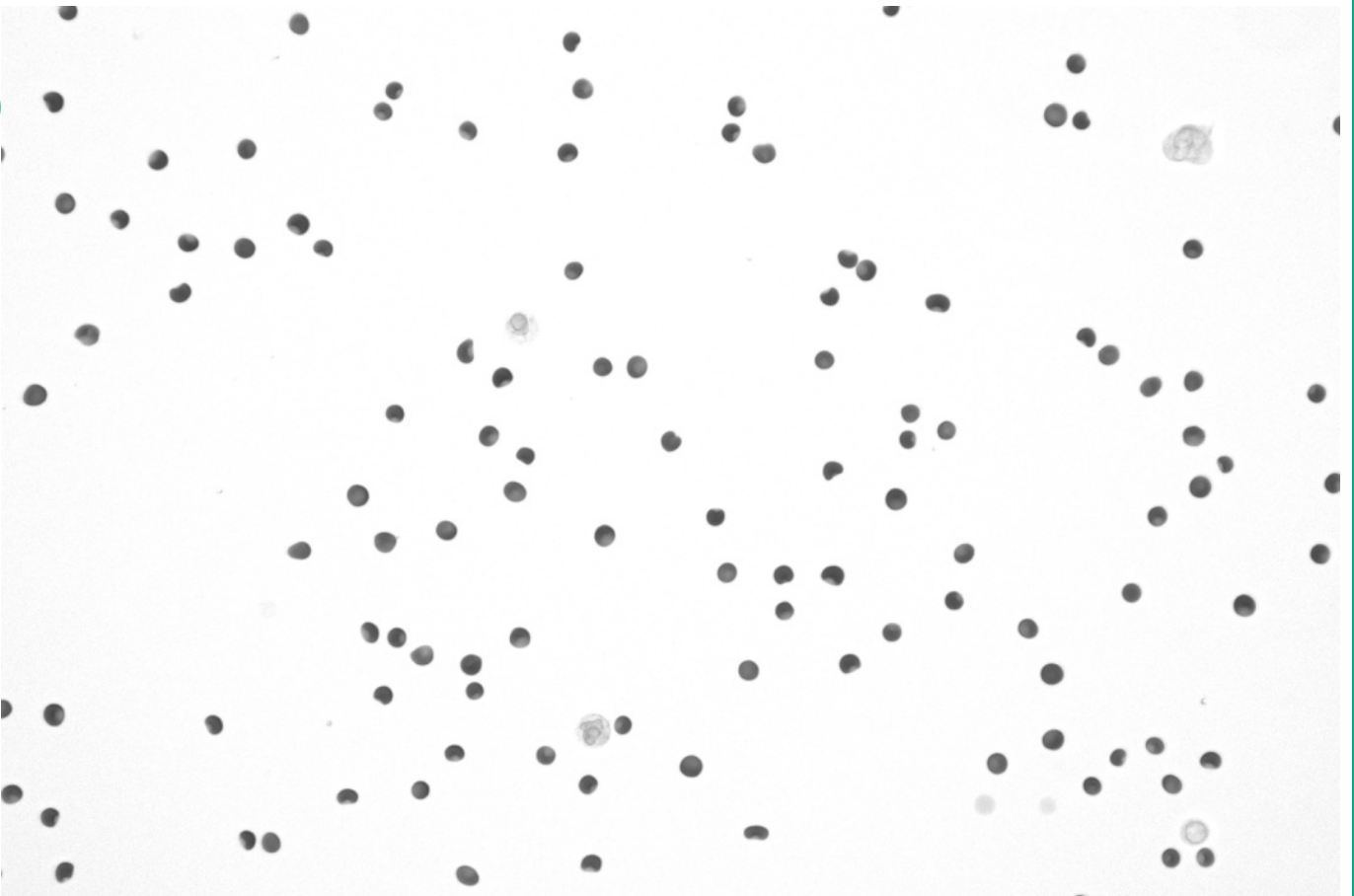
Pet age: Y M

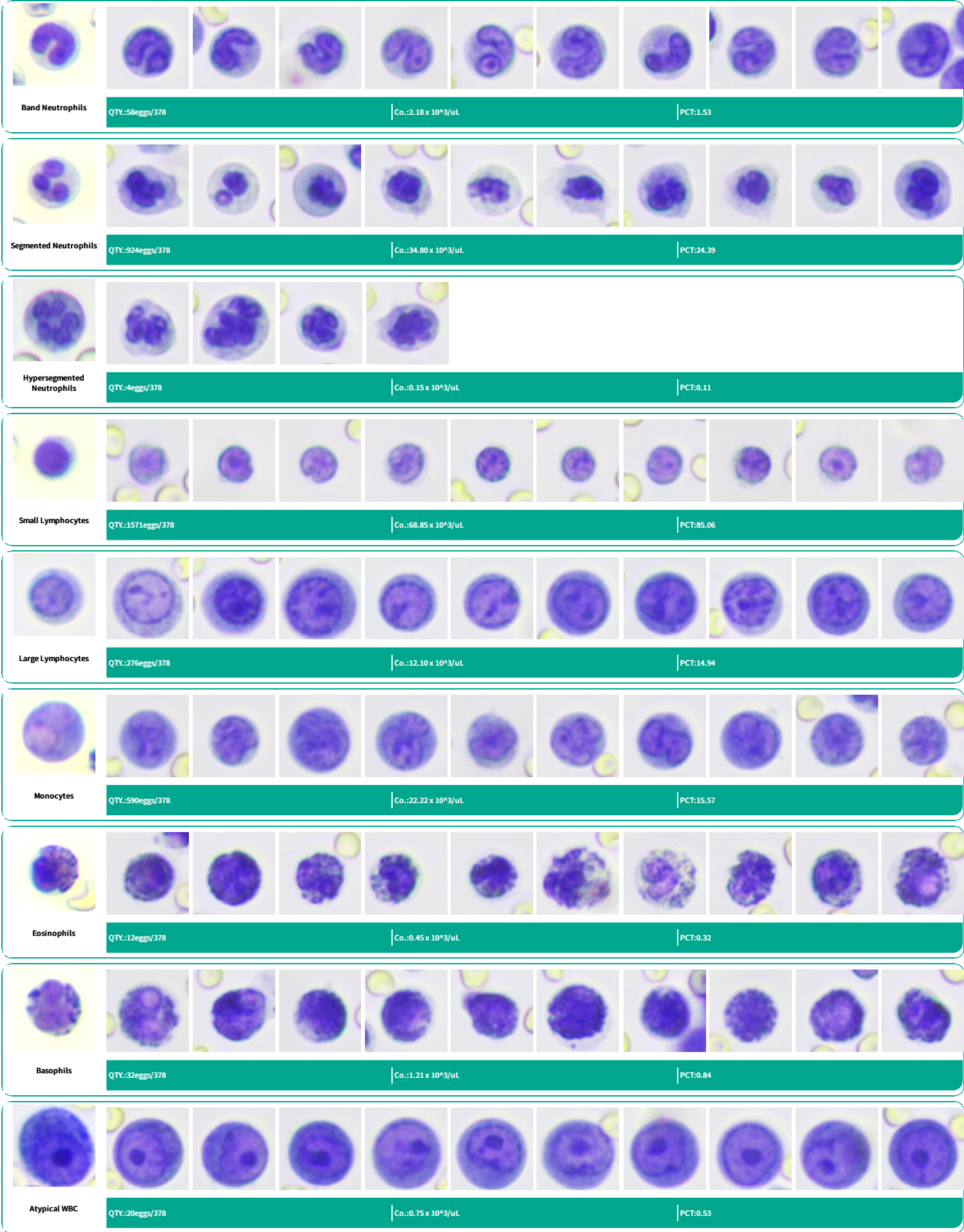
Weight: kg

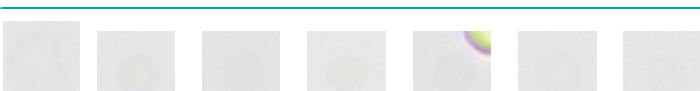
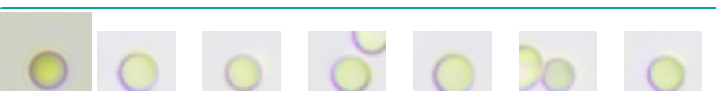
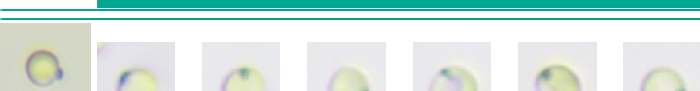
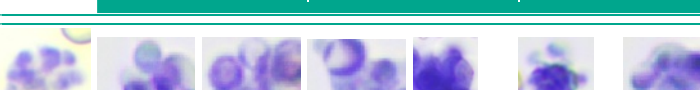
RBC & PLT Distribution Image



HGB Distribution Image





 Normocytes QTY.:2226eggs/56 Co.:1.29 x 10⁶/uL PCT:50.31	 Normochromic Erythrocytes QTY.:4267eggs/48 Co.:2.88 x 10⁶/uL PCT:90.48
 Macrocytes QTY.:47eggs/56 Co.:0.03 x 10⁶/uL PCT:1.06	 Hyperchromic Erythrocytes QTY.:90eggs/48 Co.:0.06 x 10⁶/uL PCT:1.91
 Microcyte QTY.:2152eggs/56 Co.:1.24 x 10⁶/uL PCT:48.63	 Hypochromic Erythrocytes QTY.:359eggs/48 Co.:0.24 x 10⁶/uL PCT:7.61
 Reticulocytes QTY.:0eggs/60 Co.:0.00 x 10³/uL PCT:0.00	 Nucleated RBC QTY.:20eggs/378 Co.:0.45 x 10³/uL PCT:0.32
 Ghost Cells QTY.:736eggs/56 Co.:425.44 x 10³/uL PCT:11.83	 Spherocytes QTY.:57eggs/60 Co.:8.15 x 10³/uL PCT:0.23
 RBC Clump QTY.:0eggs/60 Co.:0.00 x 10³/uL PCT:0.00	 Acanthocytes QTY.:0eggs/60 Co.:0.00 x 10³/uL PCT:0.00
 Heinz Bodies QTY.:22eggs/60 Co.:3.15 x 10³/uL PCT:0.09	 Large Platelets QTY.:1eggs/56 Co.:0.58 x 10³/uL PCT:1.28
 Platelets Clump QTY.:16eggs/378 Co.:0.36 x 10³/uL PCT:0.81	

Diagnostic Recommendation

1. [NEU#>12.58] Common causes: 1. Inflammation: bacterial or parasitic infection, recovery phase of parvovirus infection, chronic inflammation 2. Stress 3. Postoperative status 4. Glucocorticoid effect 5. Autoimmune diseases 6. Neoplasia
2. [NST#>0.80] It is suggested that the neutrophil nucleus shifts to the left.
3. [NSG#>12.50] It is common in infectious inflammation, poisoning, after operation, stress hemogram and so on.
4. [LYM#>6.60] It is common in viral infection, lymphoma, lymphatic leukemia and so on.
5. [MON#>0.90] It is common in chronic infectious diseases, convalescence of diseases, and the use of glucocorticoid drugs.
6. [BAS#>0.12] It is common in allergy, parasitic disease, inflammation, tumor, hyperlipidemia, use of glucocorticoid and so on.
7. [RBC<5.60] It is common in acute / chronic hemorrhagic anemia, hemolytic anemia, nutritional anemia, aplastic anemia and so on.
8. [HGB<9.80] It is common in acute / chronic hemorrhagic anemia, hemolytic anemia, nutritional anemia, aplastic anemia and so on.
9. [HCT<26.00] It is common in anemia or bleeding caused by various causes, and the increase in plasma volume caused by various causes.
10. [ETG#>2.50] It is suggested that erythrocyte hemolysis occurs. Common Causes: 1. Mechanical destruction of erythrocytes and hemolysis caused by physical forces; 2. Regenerative anemia; 3. Myeloproliferative disorders; 4. In case of minor increases in erythrocyte ghost, typically less than 5%, it is common in osmotic imbalance; 5. In case of large increases in erythrocyte ghost, typically over 10%, or even over 20% or higher, it is common in changes in osmotic fragility due to membrane damage. Suggestions for next step testing: Investigate physical causes of hemolysis such as repeated puncturing of blood vessels by blood collection needles, physical impact on the blood-collecting vessels, etc.
11. [NRBC/WBC>0.00] It is common in heatstroke, splenic contraction, post-splenectomy, hyperthyroidism, Cushing's syndrome, corticosteroid use, myeloproliferative disorders, sepsis, endotoxic shock, drug-induced bone marrow suppression, others.
12. [PLT#<140.00] Common causes: 1. Sample aggregation: ①Physiological platelet aggregation, common in cats; ②Inadequate anticoagulation after sampling: incorrect blood-to-anticoagulant ratio, insufficient mixing of blood with anticoagulant, difficult blood collection process, or inappropriate choice of anticoagulant (e.g., heparin); ③Prolonged storage 2. Increased consumption: hemorrhage, purpura, disseminated intravascular coagulation (DIC) 3. Infection: Ehrlichia, Leishmania, feline immunodeficiency virus (FIV), feline leukemia virus (FeLV) 4. Immune-mediated thrombocytopenia 5. Splenomegaly: splenic infection, autoimmune disease, splenic neoplasia, splenic torsion 6. Drug toxicity or poisoning 7. Myeloproliferative disorders
- Recommended next steps: 1. Exclude causes related to sample aggregation 2. Inflammatory marker test: fSAA 3. Biochemistry panel: assess hepatic and renal function 4. Imaging studies (ultrasound or radiography): rule out visceral hemorrhage, assess liver, kidney, spleen, and check for tumors 5. Infection screening: FeLV, FIV, Ehrlichia 6. Coagulation profile
13. [PCT<0.20] It suggests thrombocytopenia.
14. [APLT#>0.15] This is commonly associated with microscopic platelet aggregation not visible to the naked eye. Causes of sample aggregation: 1. Physiological platelet aggregation, commonly seen in cats 2. Inadequate anticoagulation after sampling 3. Prolonged storage. Common pathological causes include immune-mediated thrombocytopenia, azotemia, infectious diseases, malignancies, cardiac disease, or drug-induced disorders.
- Recommended next step: Rule out sample handling and technical artifacts. If no abnormalities are confirmed in sample processing, proceed with differential diagnosis in the pathological direction.
15. [WBC>17.90 MON#>0.90] It is suggested that chronic inflammation or the middle and later stage of inflammation is present. Common Causes: 1. Viral infections: Feline infectious peritonitis, feline calicivirus, and feline immunodeficiency virus; 2. Chronic inflammation/infection: Chronic gingivostomatitis; 3. Blood parasites: Ehrlichiosis, Bartonella; 4. Tumors: Intestinal lymphoma; mast cell tumor. Suggestions for next step testing: 1. Inflammation indicators testing: fSAA; 2. Viral screening; 3. Abdominal ultrasound; 4. Body cavity fluid analysis and feline coronavirus PCR test can be considered if ascites or abdominal lymphadenopathy is present.
16. [RBC<5.60 HGB<9.80] It is suggested that positive cell anemia is common in aplastic anemia, acute blood loss within 40 hours, hemolysis within 40 hours, low hematopoietic function, leukemia and so on.
17. [HGB<9.80 MCV<38.70] It is suggested that simple microcellular anemia is common in chronic infection, poisoning, inflammation, liver disease, uremia, malignant tumor, rheumatic disease and so on.
18. [HGB<9.80 RET#<9.60] It is suggested that non-regenerative anemia is common in primary / secondary erythropoietic dysfunction (such as inflammation, tumor, chronic nephropathy, chronic liver disease, thyroid / adrenocortical dysfunction, etc.), iron / copper / folic acid / VB12 deficiency, lead poisoning, bone marrow fibrosis, osteosclerosis, hypoplastic anemia and so on.
19. [WBC>17.90 NST#>0.80 NSG#>12.50] It is suggested that acute inflammation is common in local / systemic acute / suppurative diseases (such as nephritis, uterine inflammation, uterine pus, pleurisy, pneumonia, endocarditis, leptospirosis, severe pyoderma, etc.).
20. [ETG#>60.00 NRBC#>0.00] It is common in hemolytic diseases, blood parasitic diseases, etc., it is recommended to conduct PCR testing for differential diagnosis.
21. [RBC<5.60 NRBC#>0.00] It is common in regenerative anaemia (haemolytic or haemorrhagic), some non-regenerative anaemia (severe hypoxia, splenic tumours, lymphoma, angiosarcoma, bone marrow tumours, erythroid hyperplasia, myeloid tuberculosis, leukaemia, decreased pyruvate kinase, endotoxaemia, lead poisoning, etc.), post-splenectomy, hyperthyroidism, Cushing's syndrome, myeloproliferative disorders, etc.
22. [WBC>40.00 LYM#>20.00 MON#>0.90] Common Causes: 1. Reactive or infectious lymphocytosis, such as viral infections (feline immunodeficiency virus, feline leukemia virus), parasitic infections (Leishmania/Bartonella in blood); 2. Immune-mediated diseases; 3. Tumor: Lymphocytic leukemia. Suggestions for next step testing: 1. Focus on medical history to see if lymphocytosis has been persistent for a long period; 2. Blood smear or brown-yellow layer preparation to check for lymphoblast or mitosis; 3. Inflammation indicators testing: fSAA; 4. Ultrasound: Splenomegaly, accompanied with lymphadenopathy; 5. Biochemical tests; 6. Bone marrow aspiration or lymph node biopsy.
23. [WBC>17.90 NEU#>2.30 NST/WBC<10.00 LYM#>0.73 EOS#<1.20] It is suggested that excitatory leukogram is present. Common Causes: Stress, strenuous exercise, excitement, pain, seizures, etc. Assess in combination with physical examination, mental status, and life history. Typically, if caused by physiological reasons, normal levels can be restored within 1-4 hours after the animal calms down.
24. [HEB#>0.00] A small number of Heinz bodies may be seen in healthy cats. A large number of them indicates severe oxidative damage, commonly seen in cats with food or drug poisoning such as onion, garlic, acetaminophen, or methylene blue, metabolic diseases such as diabetes and hyperthyroidism, severe chronic inflammation, or tumors.
25. [RBC<4.50 CH_CV11 CH_CV20] This indicates microcytic hypochromic anemia, commonly seen in cases of iron deficiency anemia, chronic inflammation, portosystemic shunt (PSS), or copper deficiency.
26. [LLYM#>0.00] This is indicative of reactive lymphocytosis: caused by acute infection, chronic stimulation, vaccine response, allergy, or certain inflammatory conditions. Alternatively, it may suggest a lymphoproliferative disorder such as lymphoma/leukemia (the hematologic phase of lymphoid cancer), in which malignant lymphocytes (often large lymphocytes or lymphoblasts) enter the peripheral blood in large numbers.
27. [SLYM#>6.60] An increased small lymphocyte count may be physiological or pathological.
- In cats, physiological lymphocytosis is commonly seen as a transient response following vaccination or due to stress, which may cause a mild to moderate increase in the number or proportion of small lymphocytes.
- Pathological lymphocytosis is more often associated with inflammatory or infectious processes, immune-mediated diseases, hyperadrenocorticism, lymphoma, leukemia, and other disorders.
- It is recommended to first assess the possibility of a physiological response based on the history and current clinical status, and then evaluate potential pathological causes by integrating findings from physical examination and hematologic tests.