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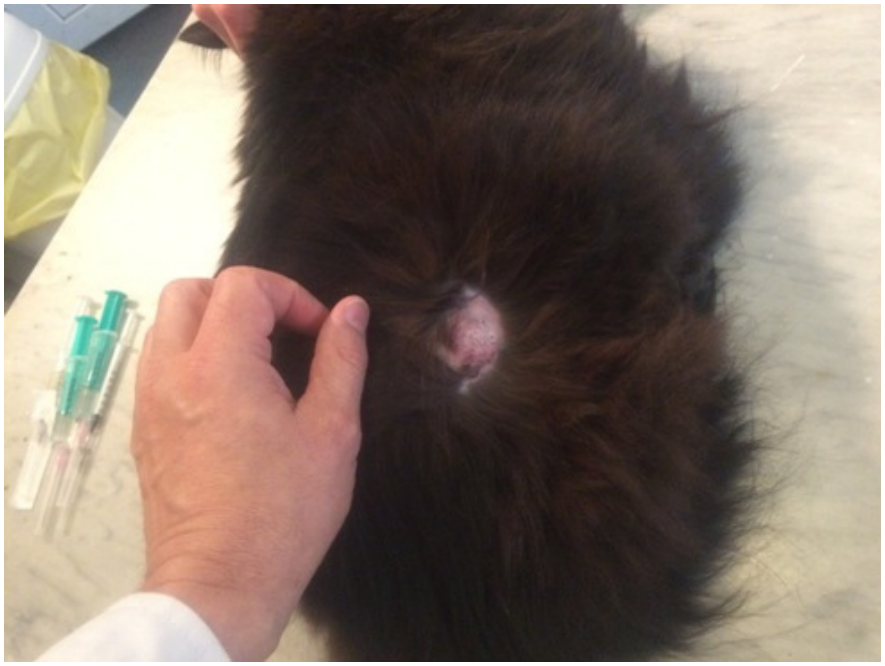
Patient Description:

Breed: Maine coon cat (but not a pure bred)
Colour: fekete
Age: 5 years
Gender: male

Histrory:
There was a flat lesion (diameter 2.5 cm wide round, hight 0.5 cm) on the left axillar region. The cat was continously licking it. Surgical excision was performed with wide and deep surgical margins. Histopatholgy diagnosis was a mast cell tumour, grade III.
Another erosion was identified on the flank without marked thickening of the sckin. The cat started to vomit during the last few days and was reluctant to eat.

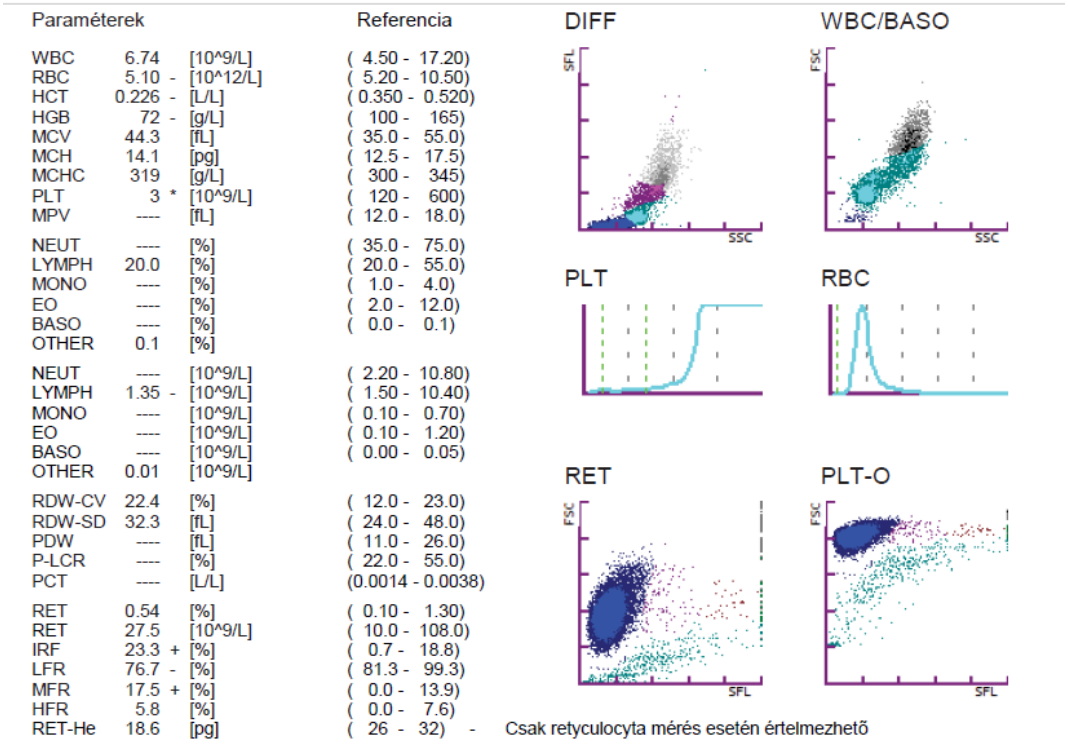
CIlnical Evaluation:
Good general condition. Mucous membranes, lymph nodes are normal. The right popliteal lymph node is slightly larger (palpable).
There is an erosion like lesion on the lateral part of the right thigh with a diameter of 3.5 x 2.5 cm. This is reddened and alopecic, with crusts on it. The thickness of the skin is 3 mm. There is a smaller one on the lateral part of right knee.
The chest sound physiological. The heart sounds are normal.
The abdominal cavity is not enlarged. The mid zone of the epigastric space is slightly painfull. All other organs are having normal palpation.

Ultrasonography: Liver was normal in size and echogenity. Spleen is slightly enlarged, and its echogenity is moderately increased. Kidneys appear physiological normal. The stomach wall is widened (diam: 0.6 cm). Lymph node enlargement was not detectable in the abdominal cavity. The urine bladder was normal.



Hematology:

Fig1 Sysmex Xt-2000iv hematology analyzer report

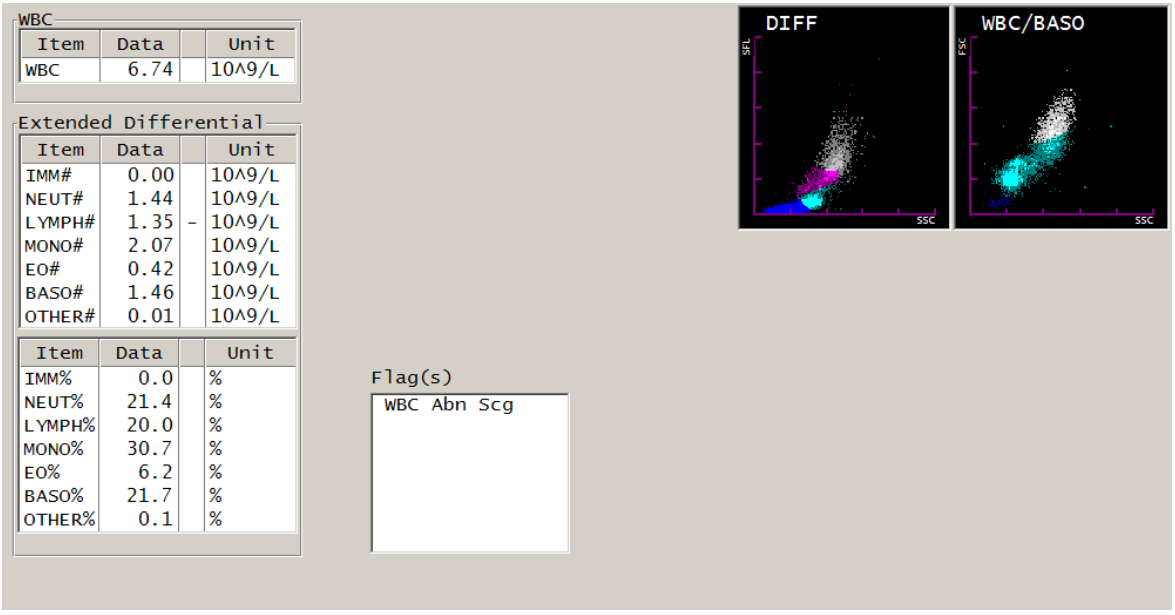


Paraméterek			Referencia
WBC	6.74	[10^9/L]	(4.50 - 17.20)
RBC	5.10 -	[10^12/L]	(5.20 - 10.50)
HCT	0.226 -	[L/L]	(0.350 - 0.520)
HGB	72 -	[g/L]	(100 - 165)
MCV	44.3	[fL]	(35.0 - 55.0)
MCH	14.1	[pg]	(12.5 - 17.5)
MCHC	319	[g/L]	(300 - 345)
PLT	3 *	[10^9/L]	(120 - 600)
MPV	----	[fL]	(12.0 - 18.0)
NEUT	----	[%]	(35.0 - 75.0)
LYMPH	20.0	[%]	(20.0 - 55.0)
MONO	----	[%]	(1.0 - 4.0)
EO	----	[%]	(2.0 - 12.0)
BASO	----	[%]	(0.0 - 0.1)
OTHER	0.1	[%]	
NEUT	----	[10^9/L]	(2.20 - 10.80)
LYMPH	1.35 -	[10^9/L]	(1.50 - 10.40)
MONO	----	[10^9/L]	(0.10 - 0.70)
EO	----	[10^9/L]	(0.10 - 1.20)
BASO	----	[10^9/L]	(0.00 - 0.05)
OTHER	0.01	[10^9/L]	
RDW-CV	22.4	[%]	(12.0 - 23.0)
RDW-SD	32.3	[fL]	(24.0 - 48.0)
PDW	----	[fL]	(11.0 - 26.0)
P-LCR	----	[%]	(22.0 - 55.0)
PCT	----	[L/L]	(0.0014 - 0.0038)
RET	0.54	[%]	(0.10 - 1.30)
RET	27.5	[10^9/L]	(10.0 - 108.0)
IRF	23.3 +	[%]	(0.7 - 18.8)
LFR	76.7 -	[%]	(81.3 - 99.3)
MFR	17.5 +	[%]	(0.0 - 13.9)
HFR	5.8	[%]	(0.0 - 7.6)
RET-He	18.6	[pg]	(26 - 32) -

Csak retyculocyta mérés esetén értelmezhető

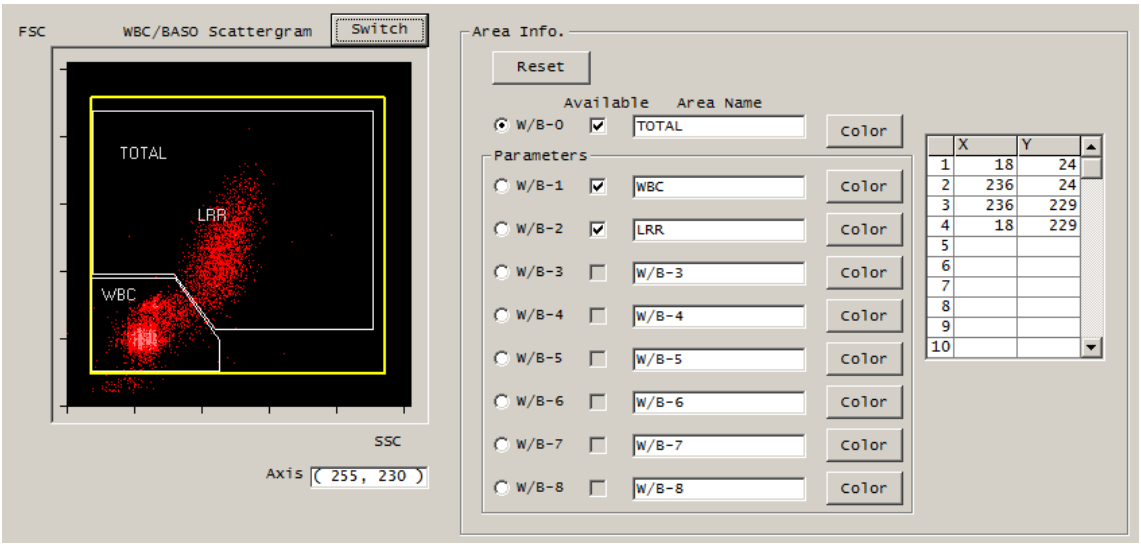
Comment: These results were given directly by the analyser. The instrument did not report the neutrophil and and monocyte counts.

Fig 2. Selected WBC /BASO Scattergram shows a separate large cell population according to the fixed plot of the analyser. The „research” plot gives estimated results given by the fixed gating.



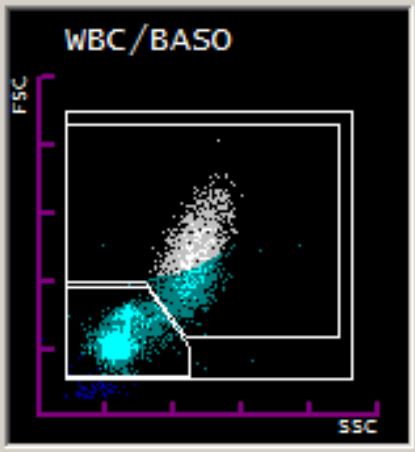
Comment: Monocytic count is 30.7% - which is unbelievable. That is why the instrument orginially did not report this result. The neutrophilic count defenitely shows low value.

Fig 3. Selected WBC /BASA Scattergram



Comment: This plot shows a separate large cell population by a manual gating (population selection), according to the separate cell clusters

Fig 4. W/B-2 channel



No	WBC/BASO	#		%	
0	TOTAL	5.52			
1	WBC	3.35		60.8	
2	LRR	2.14		38.8	
3	W/B-3				
4	W/B-4				
5	W/B-5				
6	W/B-6				
7	W/B-7				
8	W/B-8				

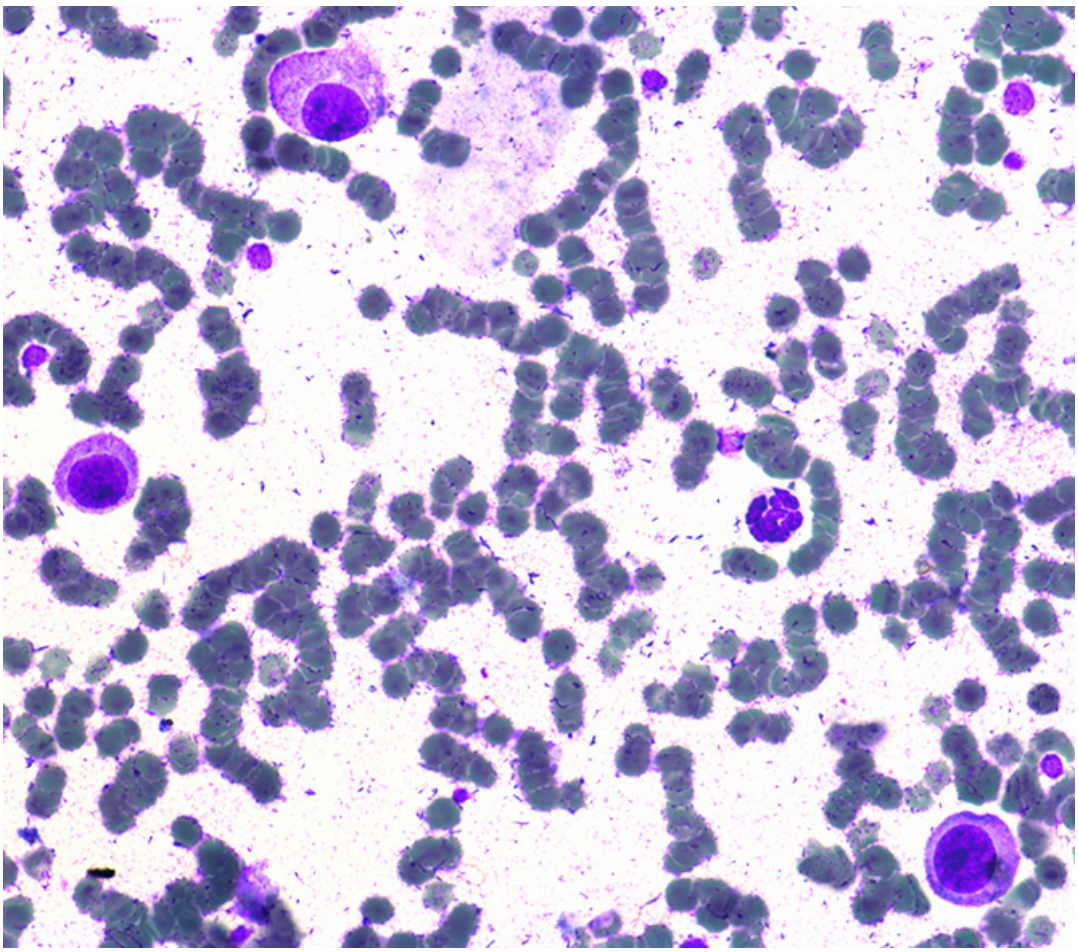
Comment: The dot plot has a large cell cluster of lysis restistant cells which was 38 % of all cells.

Blood smear evaluation:

Small Lymphocytes: 13.2 %
Large lymphocytes: 0.7 %
Segmented neutrophil granulocytes: 41.7%
Band neutrophil granulocytes: 1.4 %
Monocytes: 4.9 %
Abnormal large round cells: 37.5%
Nucleated RBC: 0.6 %

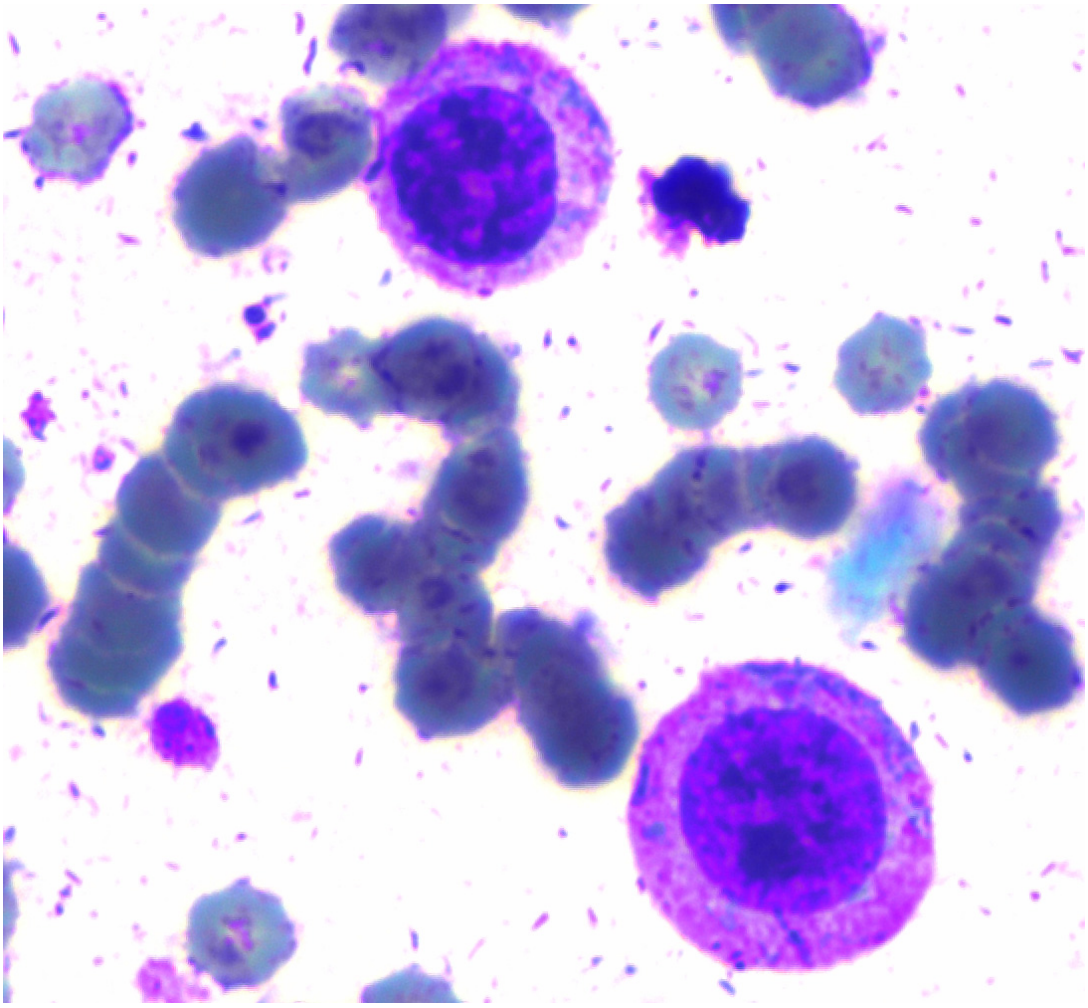
There is a slight non regenerative hypochromic anemia with low reticluocyte values, appearance of nucleated RBCs and marked RBC aggregation in the smear. This is typical finding of disturbed erythropoiesis. Thrombocytopenia was not associated with platelet aggregation.
There was a neutropenia with a right shift.
A large number of round cells were 2.5-3 times larger than the diameter of the RBCs. Their cytoplasm is moderately abundant and occasionally contained small magenta granules. The nuclei are excentric placed and large. Nuclei had a stippled chromattin pattern and a large centrally located nucleolus. Mitotic figures are not seen.

Fig 5



Blood smear with 3 large mononuclear cells and 1 neutrophil. Original magnification 600 X.

Figure 6



Blood smear with 2 large mononuclear cells and rouleaux. Original magnification 1000 X.