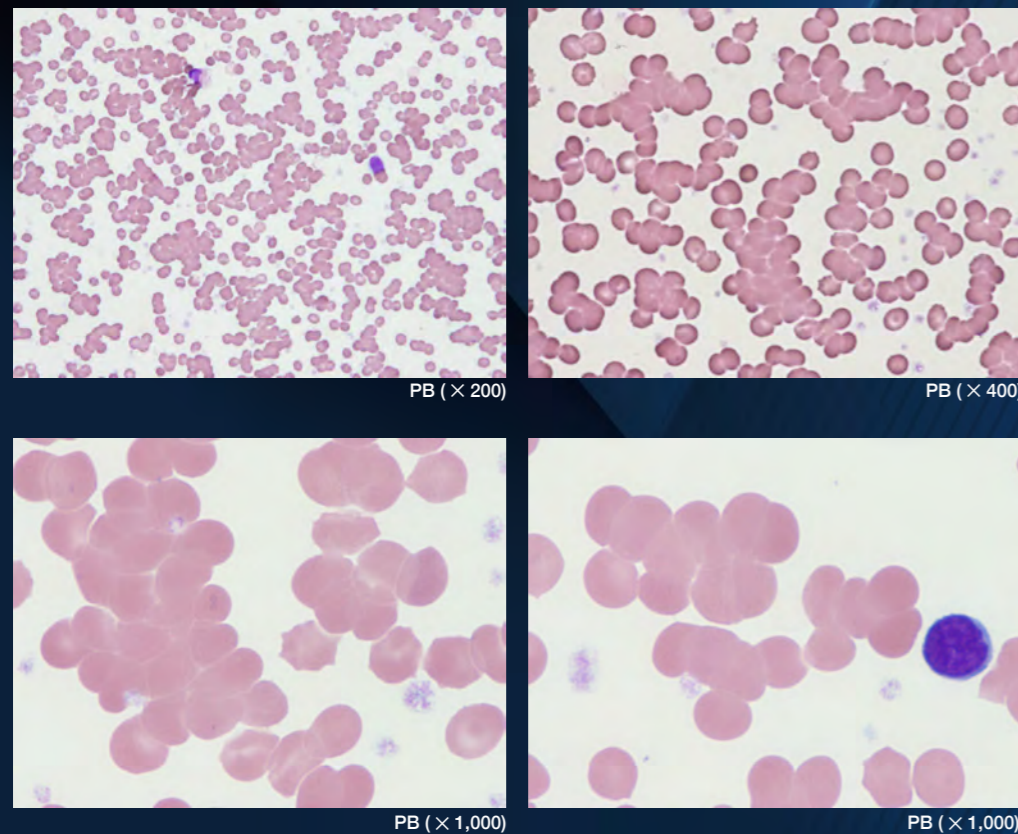


Case 5-1

Cold Agglutinin Disease (sample at room temperature)

The patient developed hemolytic anemia in 20XX and was diagnosed with cold agglutinin disease after a detailed examination revealed a cold agglutinin titer of 1:256. The patient received monthly red blood cell transfusions for treatment.

Blood smear (May-Giemsa staining)



Explanation of case

In this clinical case, a cold agglutinin titer was measured because hemolytic anemia was observed and peripheral blood smear showed erythrocyte agglutination, and the result was 1:256. The patient was diagnosed with cold agglutinin disease due to it. Cold agglutinin disease is often associated with lymphoplasmacytic lymphoma, but no lymphoma cells were observed in this case. A peripheral blood smear prepared at room temperature showed severe agglutination of red blood cells.

Celltac Data

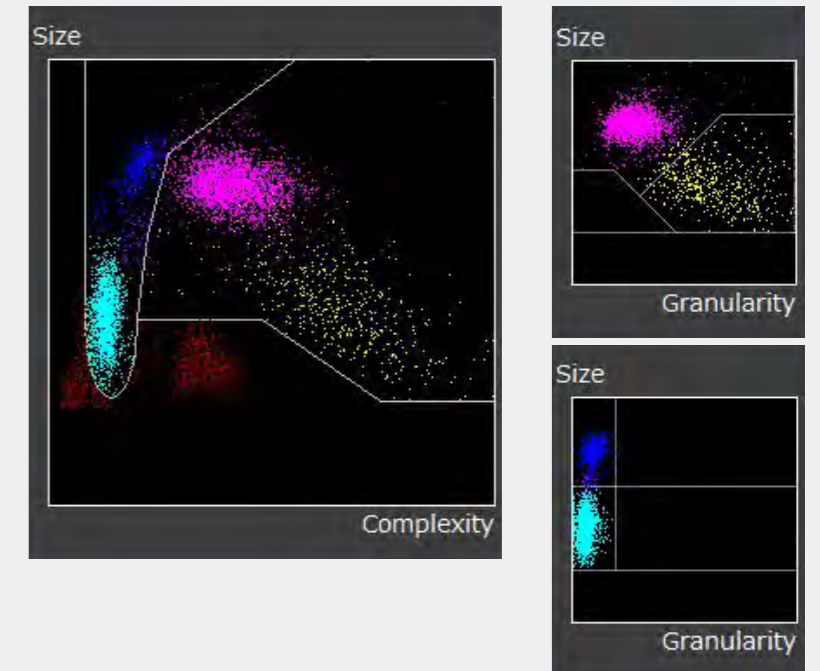
Numerical results

WBC	7.58		10 ³ /μL
RBC	<u>1.79</u>	L	10 ⁶ /μL
HGB	7.89	L	g/dL
HCT	<u>17.7</u>	L	%
MCV	98.9		fL
MCH	44.1	H	pg
MCHC	<u>44.6</u>	!	g/dL
RDW-CV	<u>29.6</u>	H	%
RDW-SD	<u>117.1</u>	H	fL
PLT	523.1	H	10 ³ /μL
PCT	0.41	H	%
MPV	7.8		fL
PDW	16.4		%
P-LCR	33.1		%
P-LCC	173.1	H	10 ³ /μL
NE	3.82		10 ³ /μL
LY	2.46		10 ³ /μL
MO	0.52		10 ³ /μL
EO	0.70	H	10 ³ /μL
BA	0.08		10 ³ /μL
NE%	50.42		%
LY%	32.41		%
MO%	6.81		%
EO%	9.28		%
BA%	1.08		%
RET	0.0854		10 ⁶ /μL
RET%	4.77	H	%
IRF	7.5		%
LFR	92.5		%
MFR	7.0		%
HFR	0.5		%

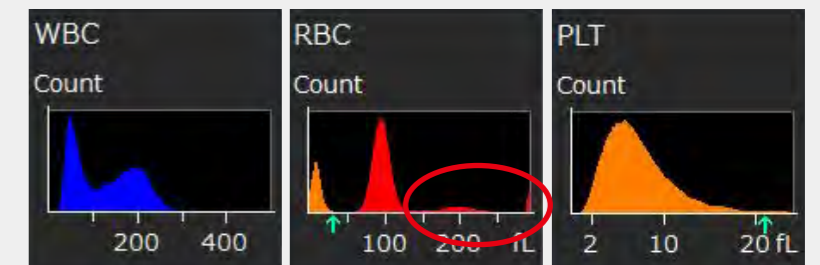
Flags

Morphological Flags	Numerical Flags
	Anemia
	Anisocytosis
	<u>Abnormal MCHC</u>

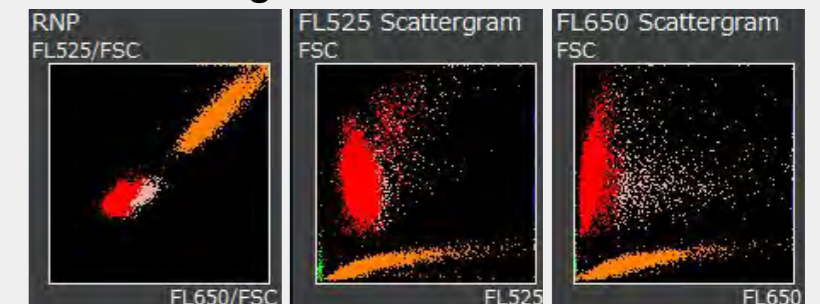
Scattergrams



Histograms



RET Scattergrams



Explanation of scattergram/histogram

Results showed abnormally low values for RBC and HCT. MCHC was high at 44.6 g/dL with the “!” indication meaning unreliable data. The “Abnormal MCHC” in the flag display area is related to this point. The RBC histogram showed peaks in areas with large cells (○) and both RDW-CV and RDW-SD also showed high values. For the behavior of these numbers, it was considered that the RBC and HCT showed false low values because erythrocyte agglutination was measured as large RBCs.