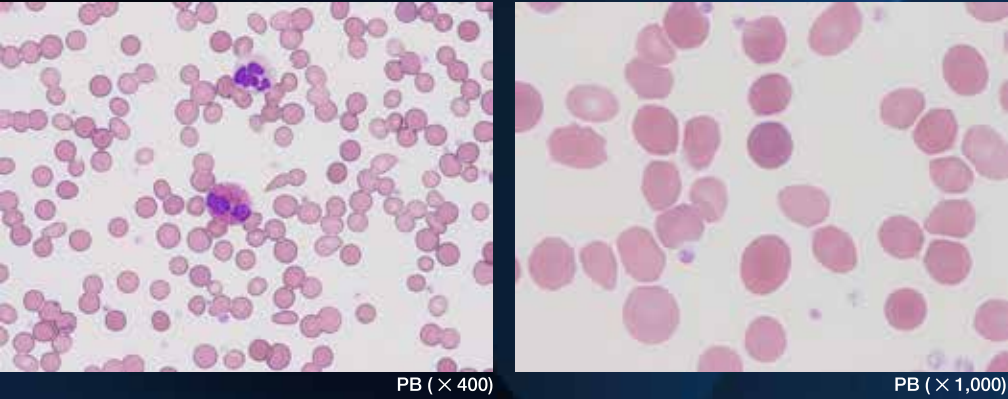


Case 9

Hereditary Spherocytosis (HS)

A male child diagnosed with hereditary spherocytosis at the age of 1 visited the hospital for a routine checkup.

Blood smear (May-Giemsa staining)



Visual differential counts

	(%)
Blast	0.0
Promyelo	0.0
Myelo	0.0
Meta	0.0
Band	1.0
Seg	59.0
Eosino	8.0
Baso	1.0
Mono	3.0
Lympho	28.0
Reactive-Ly	0.0
Other	0.0
NRBC	0.0

Celltac Data

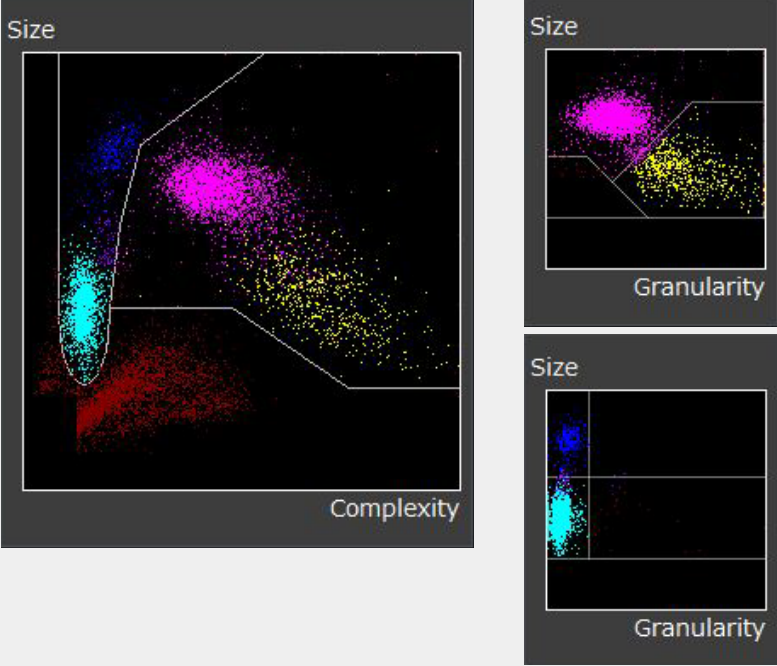
Numerical results

WBC	8.77		10 ³ /μL
RBC	<u>3.71</u>	L	10 ⁶ /μL
HGB	<u>9.60</u>	L	g/dL
HCT	<u>29.1</u>	L	%
MCV	78.4	L	fL
MCH	25.9	L	pg
MCHC	33.0		g/dL
RDW-CV	<u>27.4</u>	H	%
RDW-SD	85.9	H	fL
PLT	435.8	H	10 ³ /μL
PCT	0.31		%
MPV	7.1	L	fL
PDW	17.2		%
P-LCR	25.3	L	%
P-LCC	110.3		10 ³ /μL
NE	4.82		10 ³ /μL
LY	2.64		10 ³ /μL
MO	0.30		10 ³ /μL
EO	0.91	H	10 ³ /μL
BA	0.10		10 ³ /μL
NE%	54.87		%
LY%	30.14		%
MO%	3.46	L	%
EO%	10.35	H	%
BA%	1.18		%
RET	0.5402	H	10 ⁶ /μL
RET%	<u>14.56</u>	H	%
IRF	14.8		%
LFR	85.2	L	%
MFR	13.5		%
HFR	1.3		%

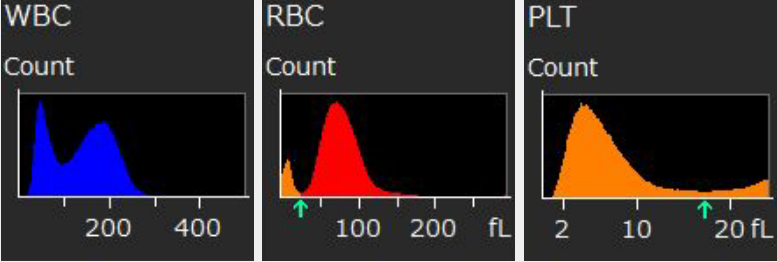
Flags

Morphological Flags	Numerical Flags
	Eosinophilia
	Anemia
	Anisocytosis

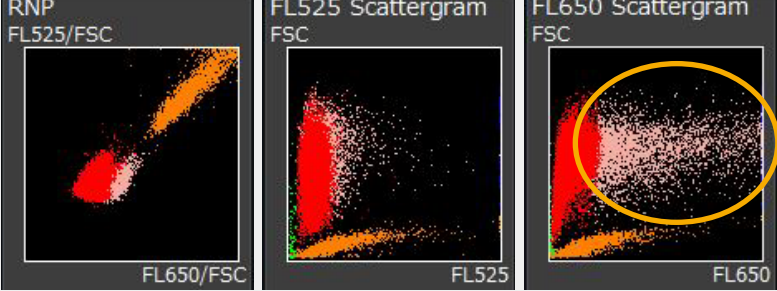
Scattergrams



Histograms



RET Scattergrams



Explanation of scattergram/histogram

Items related to red blood cells, such as RBC, HGB, and HCT, are low, suggesting anemia. An “Anemia” flag indicating this is shown. Additionally, RDW-CV was abnormally high (27.4%), suggesting the appearance of RBCs of varying sizes. An “Anisocytosis” flag indicating this is shown. RET is also abnormally high at 14.56%, and the reticulocyte plot on the FL650 scattergram shows a distribution extending to the right (○). The scattergram also suggests a high number of reticulocytes.

■ Data provision and supervision, Department of Clinical Laboratory, The University of Tokyo Hospital
Masahiro Jona

Explanation of case

The complete blood count revealed an HGB level of 9.6 g/dL, indicating anemia. The reticulocyte percentage is 14.56%, and both the reticulocyte percentage and absolute count are elevated. Biochemical tests revealed the following: lactate dehydrogenase (LD), 348 U/L; total bilirubin (T-BiL), 2.9 mg/dL; direct bilirubin (D-BiL), 0.6 mg/dL; and haptoglobin (Hp) <1 mg/dL. These values indicate hemolysis. The peripheral blood smear showed an increase in polychromatic cell and spherocytes, which appear as darkly stained red blood cells, consistent with hereditary spherocytosis.