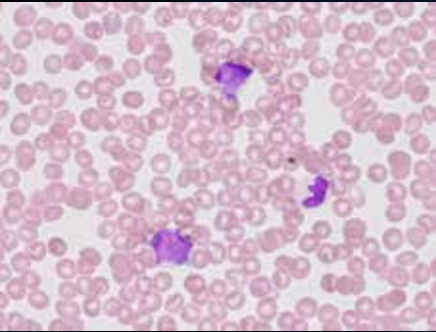


Case 14

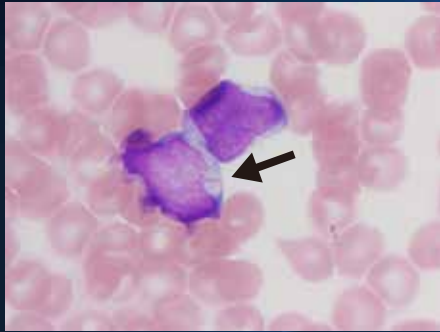
AML-M2

The patient visited a local clinic for bruising and was referred to the hospital upon detection of a reduced platelet count.

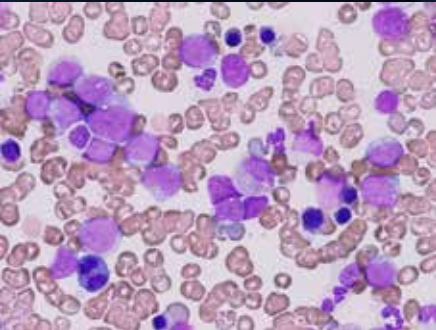
Blood smear (May-Giemsa staining)



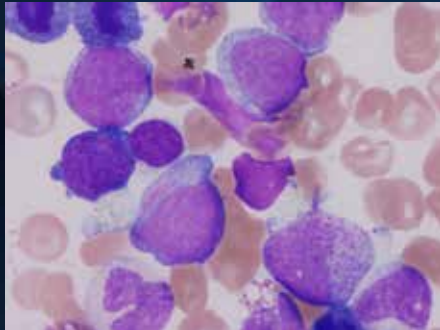
PB (× 400)



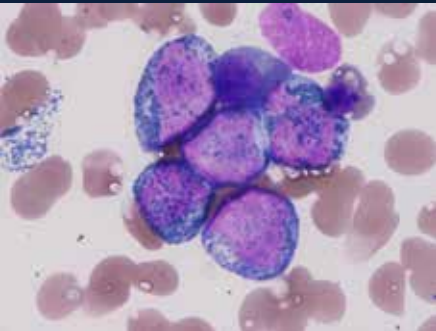
PB (× 1,000)



BM (× 400)



BM (× 1,000)



Peroxidase staining BM (× 1,000)

Visual differential counts

	(%)
Blast	26.0
Promyelo	0.0
Myelo	1.0
Meta	1.5
Band	7.0
Seg	38.0
Eosino	1.5
Baso	0.5
Mono	13.0
Lympho	11.5
Reactive-Ly	0.0
Other	0.0
NRBC	1/100WBC

Celltac Data

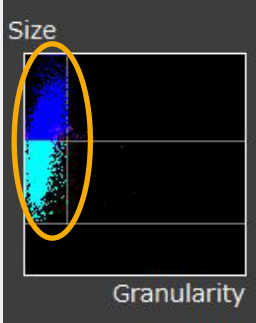
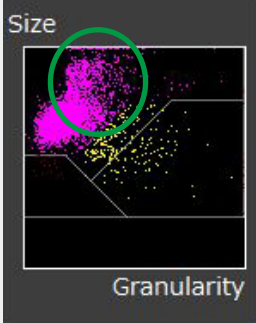
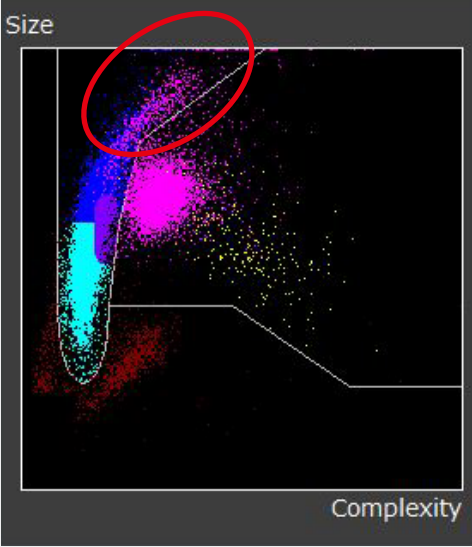
Numerical results

WBC	23.20	H	10 <sup>3</sup> /μL
RBC	3.57	*	10 <sup>6</sup> /μL
HGB	11.16	L	g/dL
HCT	33.0	L	%
MCV	92.4		fL
MCH	31.3		pg
MCHC	33.8		g/dL
RDW-CV	13.7		%
RDW-SD	50.6		fL
PLT	9.7	*	10 <sup>3</sup> /μL
PCT			%
MPV			fL
PDW			%
P-LCR			%
P-LCC			10 <sup>3</sup> /μL
NE	8.95	*	10 <sup>3</sup> /μL
LY	7.44	*	10 <sup>3</sup> /μL
MO	4.27	*	10 <sup>3</sup> /μL
EO	0.34	*	10 <sup>3</sup> /μL
BA	2.20	*	10 <sup>3</sup> /μL
NE%	38.55	*	%
LY%	32.09	*	%
MO%	18.41	*	%
EO%	1.45	*	%
BA%	9.50	*	%
RET	0.1150		10 <sup>6</sup> /μL
RET%	3.22	H	%
IRF	20.1	H	%
LFR	79.9	L	%
MFR	16.6	H	%
HFR	3.5	H	%

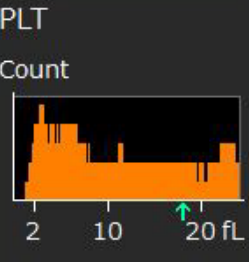
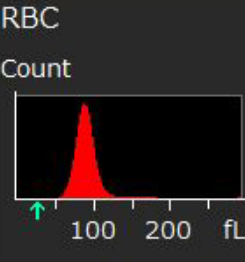
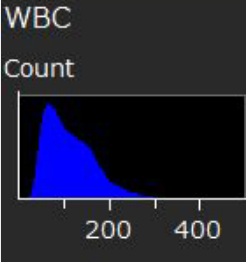
Flags

Morphological Flags	Numerical Flags
Blast	Leukocytosis
Immature Granulocyte	Lymphocytosis
Left Shift	Monocytosis
Atypical Ly	Basophilia
Ly-Mo Interference	Thrombocytopenia
	PLT-RBC Interference

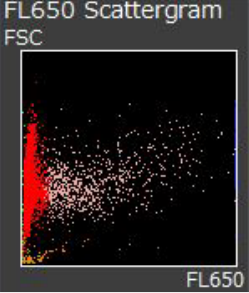
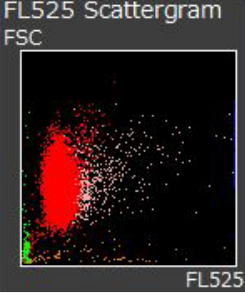
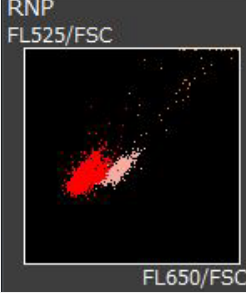
Scattergrams



Histograms



RET Scattergrams



Explanation of case

The complete blood count revealed an increased leukocyte count of 23.20 × 10<sup>3</sup>/μL, anemia, and decreased platelet count. Peripheral blood smear showed the appearance of medium to large blasts with basophilic cytoplasm, partially irregular nuclear shapes, reticular and delicate nucleoreticulum, and nucleoli. Additionally, blasts with Auer rods (↑) were observed. Similar to the peripheral blood smear, a bone marrow smear exhibited an increase in blasts (including blasts with Auer rods). Additionally, myelocytes, metamyelocytes and mature neutrophils were observed, including band neutrophils. The blasts were MPO-positive, indicating acute myeloid leukaemia.

Explanation of scattergram/histogram

The neutrophil plot on the MAIN scattergram shows a cluster that shifted to the monocyte area (○). Additionally, the neutrophil plot on the NE-EO scattergram shows a distribution extending to the upper part (○), suggesting the appearance of immature cells. An “Immature Granulocyte” flag indicating this is shown. In addition, the monocyte plot on the MO-BA scattergram shows a cluster extending from the lymphocyte area to the upper part of the monocyte area (○), which is the Blast flag detection area, suggesting the appearance of blasts. A “Blast” flag indicating this is shown.