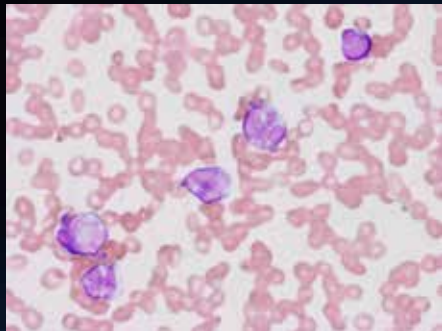


Case 17

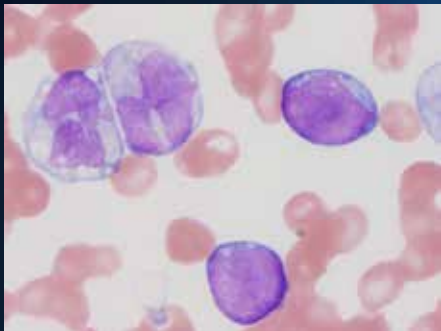
AML-M4Eo

The patient was urgently transported to hospital due to impaired consciousness.

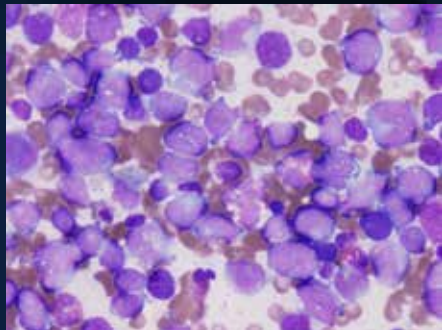
Blood smear (May-Giemsa staining)



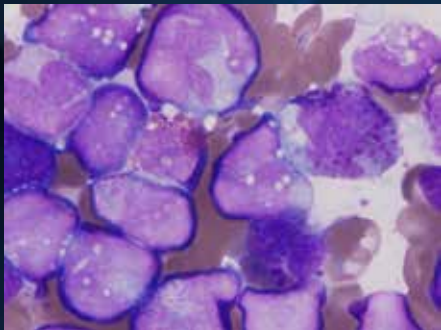
PB (× 400)



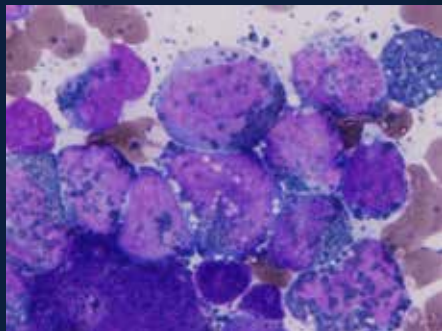
PB (× 1,000)



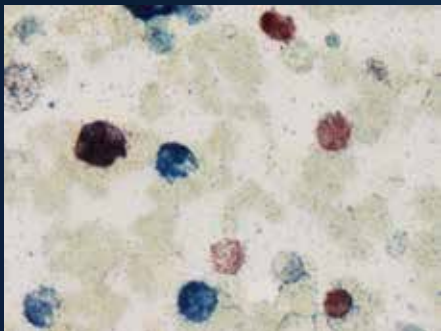
BM (× 400)



BM (× 1,000)

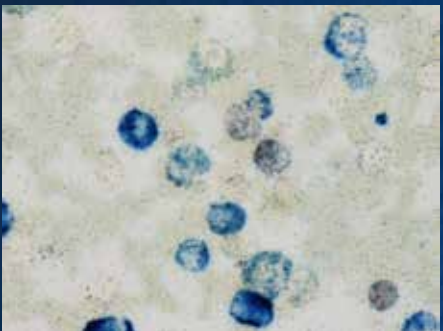


Peroxidase staining



BM (× 1,000)

Esterase α-NB/AS-D staining



Esterase α-NB/AS-D/NaF inhibition test BM (× 400)

Visual differential counts

	(%)
Blast	29.5
Promyelo	0.5
Myelo	1.5
Meta	1.0
Band	0.0
Seg	5.0
Eosino	1.0
Baso	0.0
Mono	58.5
Lympho	3.0
Reactive-Ly	0.0
Other	0.0
NRBC	0.0

Celltac Data

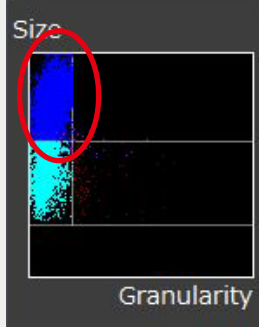
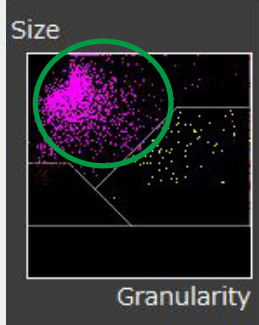
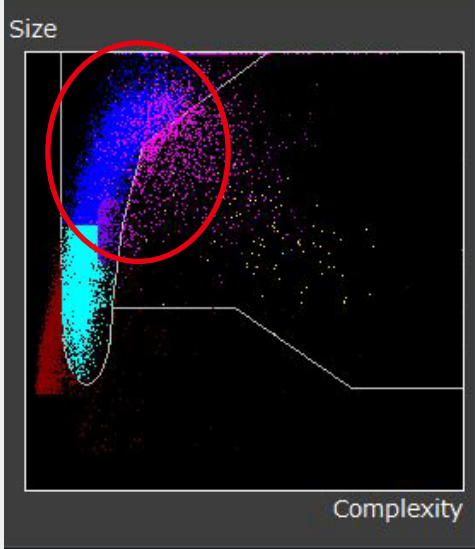
Numerical results

WBC	42.00	H	10 ³ /μL
RBC	2.83	L	10 ⁶ /μL
HGB	11.12	L	g/dL
HCT	29.4	L	%
MCV	103.9	H	fL
MCH	39.3	H	pg
MCHC	37.8	H	g/dL
RDW-CV	15.7	H	%
RDW-SD	65.2	H	fL
PLT	61.1	L	10 ³ /μL
PCT	0.05	L	%
MPV	8.1		fL
PDW	18.3		%
P-LCR	38.3		%
P-LCC	23.4	L	10 ³ /μL
NE	3.61	*	10 ³ /μL
LY	9.25	*	10 ³ /μL
MO	27.79	*	10 ³ /μL
EO	0.16	*	10 ³ /μL
BA	1.19	*	10 ³ /μL
NE%	8.60	*	%
LY%	22.02	*	%
MO%	66.15	*	%
EO%	0.39	*	%
BA%	2.84	*	%
RET	0.0212		10 ⁶ /μL
RET%	0.75		%
IRF	22.9	H	%
LFR	77.1	L	%
MFR	7.0		%
HFR	15.9	H	%

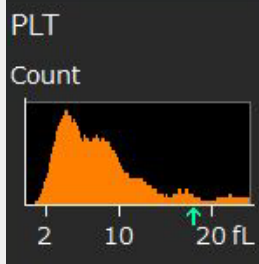
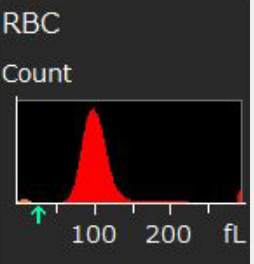
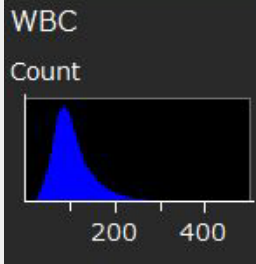
Flags

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

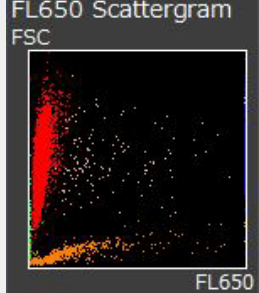
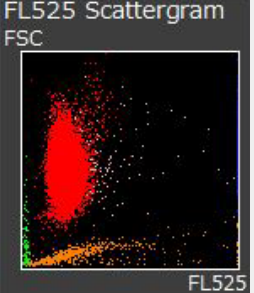
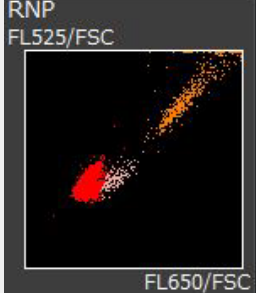
Scattergrams



Histograms



RET Scattergrams



Explanation of scattergram/histogram

The monocyte plot on the MAIN scattergram and MO-BA scattergram shows an abnormal distribution extending upwards to the Blast flag detection area (○), suggesting the appearance of blasts. A “Blast” flag indicating this is shown. 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.

Explanation of case

The complete blood count revealed an elevated leukocyte count of 42.00 × 10³/μL, anemia, and reduced platelet count. The peripheral blood smear showed an increase in blasts and monocytes. Similarly, the bone marrow smear revealed an increase in blasts and monocytes, along with an increase in eosinophils, some of which appeared abnormal with basophilic granules. The blasts were MPO-positive, and cells stained red-brown with non-specific esterase staining (monocyte lineage cells), as well as cells stained blue-green with specific esterase staining (granulocyte lineage cells), were observed. Cells stained with non-specific esterase were inhibited by sodium fluoride. Based on these findings, acute myelomonocytic leukemia with eosinophilia was suspected.