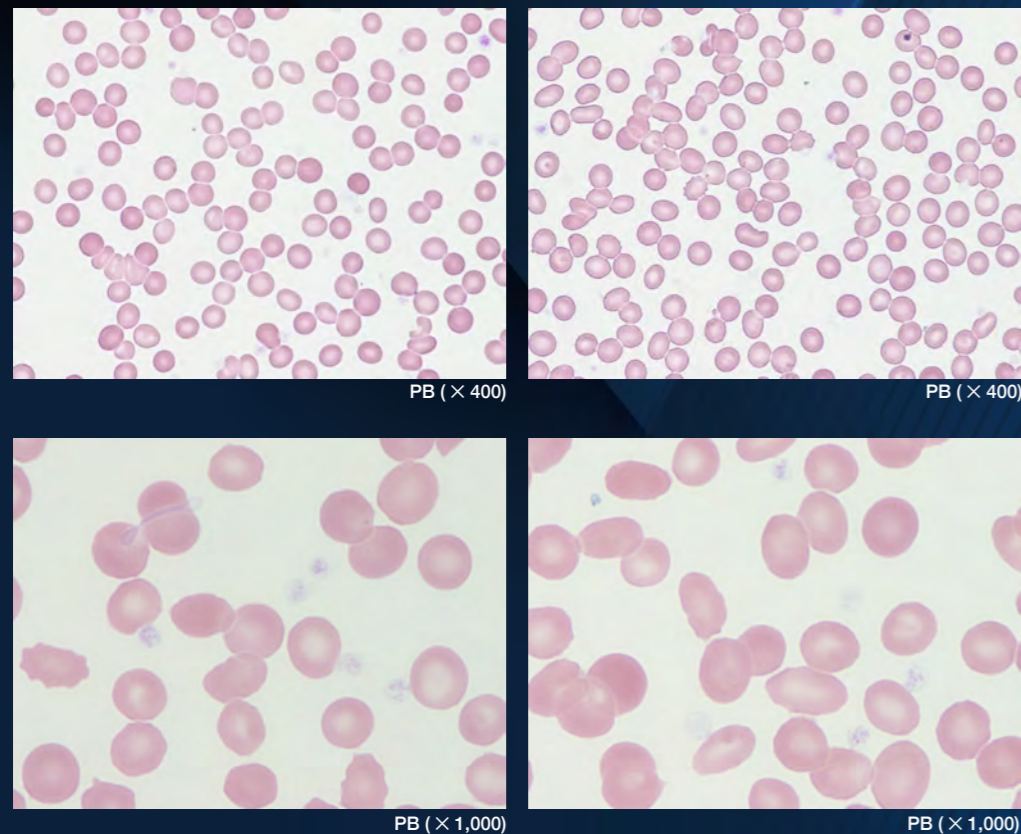


Case 6-2

EDTA-dependent pseudothrombocytopenia (kanamycin-treated specimen)

A male patient, age in his 70s, was attending the general practitioner for chronic renal failure. Tests showed thrombocytopenia, and thus the patient was referred to the hospital. A countermeasure to the EDTA-dependent pseudothrombocytopenia shown in Case 6-1 was the sampling and measurement of blood using an EDTA-2K blood sampling tube supplemented with kanamycin, which is a type of aminoglycoside antibiotic.

Blood smear (May-Giemsa staining)

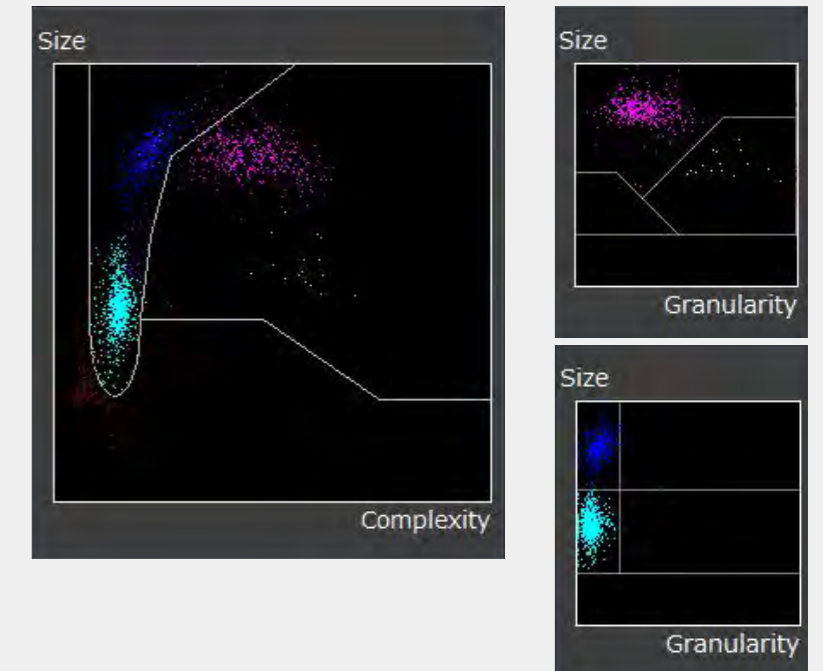


Celltac Data

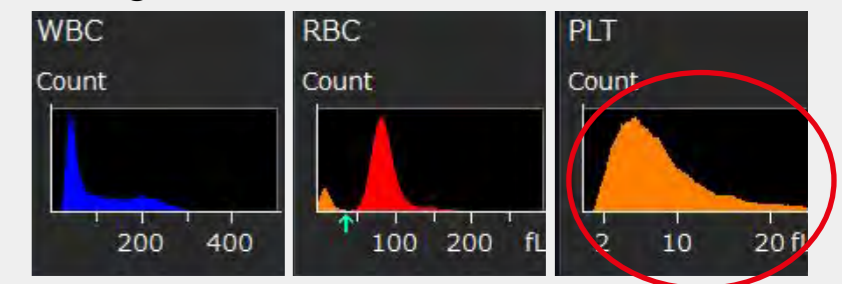
Numerical results

WBC	2.10	L	10 ³ /μL
RBC	2.89	L	10 ⁶ /μL
HGB	8.67	L	g/dL
HCT	25.1	L	%
MCV	86.9		fL
MCH	30.0		pg
MCHC	34.5		g/dL
RDW-CV	17.3	H	%
RDW-SD	60.1	H	fL
PLT	<u>410.8</u>	H	10 ³ /μL
PCT	0.37	H	%
MPV	8.9		fL
PDW	19.8	H	%
P-LCR	41.6		%
P-LCC	170.9	H	10 ³ /μL
NE	0.54	*	10 ³ /μL
LY	1.18		10 ³ /μL
MO	0.33	*	10 ³ /μL
EO	0.02	L	10 ³ /μL
BA	0.03		10 ³ /μL
NE%	25.54	*	%
LY%	56.48	H	%
MO%	15.48	*	%
EO%	1.12		%
BA%	1.38		%

Scattergrams



Histograms



Flags

Morphological Flags	Numerical Flags
Immature Granulocyte	Leukopenia
	Neutropenia
	Anemia

Explanation of case

EDTA-dependent pseudothrombocytopenia was suspected (Case 6-1), and thus the blood was sampled using an EDTA-2K blood sampling tube containing kanamycin and retested. Measurements using an EDTA-2K blood sampling tube containing kanamycin showed that the platelet count was within the standard range. Based on the changes, this clinical case was decided to be EDTA-dependent pseudothrombocytopenia. The image near the feathered edge of the peripheral blood smear showed single unclumped platelets, and PLT clumps were suppressed.

Explanation of scattergram/histogram

Case 6-1: In EDTA-dependent pseudothrombocytopenia, PLT using an EDTA-2K blood sampling tube showed a false low at $31.9 \times 10^3/\mu\text{L}$. The PLT for the same patient with EDTA-2K blood collection tube with kanamycin was $410.8 \times 10^3/\mu\text{L}$. The PLT histogram showed a log-normal distribution (○), and no “C” or “PLT Clumps” indications suspicious of platelet clumps were displayed, suggesting that the platelet measurement was performed correctly. In this clinical case, the addition of kanamycin was effective in suppressing platelet clumps.