

[PICTURES IN CLINICAL MEDICINE]

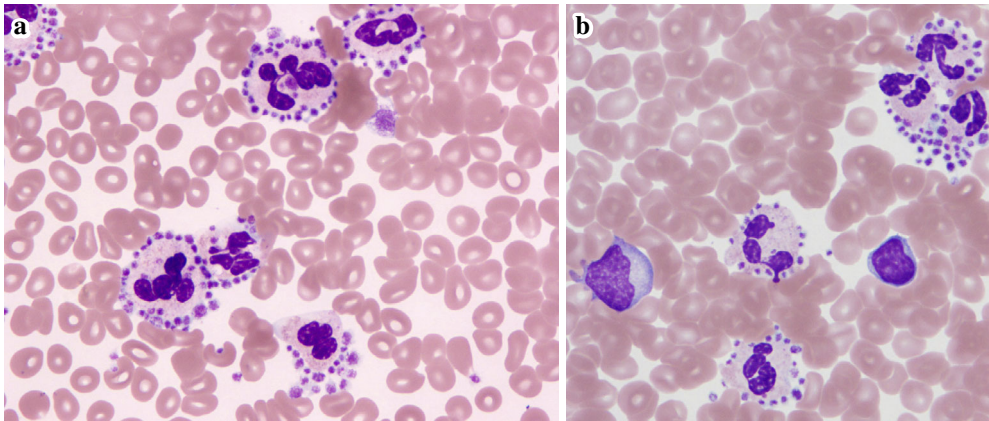
Platelet Satellitism

Kayo Toishigawa¹, Hiromi Nakagawa², Taisuke Furuta³ and Noriyasu Fukushima^{1,4}

Key words: platelet satellitism, pseudothrombocytopenia

(Intern Med 57: 1949, 2018)

(DOI: 10.2169/internalmedicine.0119-17)



Picture.

These images show many neutrophils with aggregating platelets attached in a 72-year-old woman with liposarcoma. Of note, this finding was only noted for neutrophils, not for any other cells of leukocytic lineage (Picture). “Platelet satellitism”, the aggregation of platelets around neutrophils, is a rare artificial phenomenon observed in pseudothrombocytopenia films treated with ethylenediamine tetra-acetic acid (EDTA). This phenomenon is an uncommon cause of EDTA-related pseudothrombocytopenia, although the automated platelet counts in our case was near the lower end of the normal range. This unique phenomenon is considered a bridge formation between platelets and Fc γ RIII on neutrophils, which is mediated by IgG autoantibodies directed against the EDTA-induced epitope of platelet glycoprotein IIb/IIIa (1). It has been reported in cases of vasculitis, lymphomas and chronic liver disease, although the causal association remains unclear. To our knowledge, this is the first case of platelet satellitism observed in a patient with liposarcoma.

The authors state that they have no Conflict of Interest (COI).

Acknowledgement

We sincerely thank Dr. Michiya Yokozaki (Department of Laboratory Medicine, Hiroshima University Hospital) and Dr. Tatsuo Ichinohe (Department of Hematology and Oncology, Research Institute for Radiation Biology and Medicine, Hiroshima University) for their helpful suggestions.

Reference

1. Bizzaro N, Goldschmeding R, von dem Borne AE. Platelet satellitism is Fc gamma RIII (CD16) receptor-mediated. *Am J Clin Pathol* **103**: 740-744, 1995.

The Internal Medicine is an Open Access article distributed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view the details of this license, please visit (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

¹Department of Hematology, Hiroshima University Hospital, Japan, ²Division of Laboratory Medicine, Hiroshima University Hospital, Japan, ³Department of Orthopaedic Surgery, Division of Biomedical Sciences Major, Graduate School of Biomedical Sciences, Hiroshima University, Japan and ⁴Department of Hematology and Oncology, Research Institute for Radiation Biology and Medicine, Hiroshima University, Japan
Received: August 24, 2017; Accepted: November 9, 2017; Advance Publication by J-STAGE: February 9, 2018
Correspondence to Dr. Noriyasu Fukushima, fukushin@hiroshima-u.ac.jp