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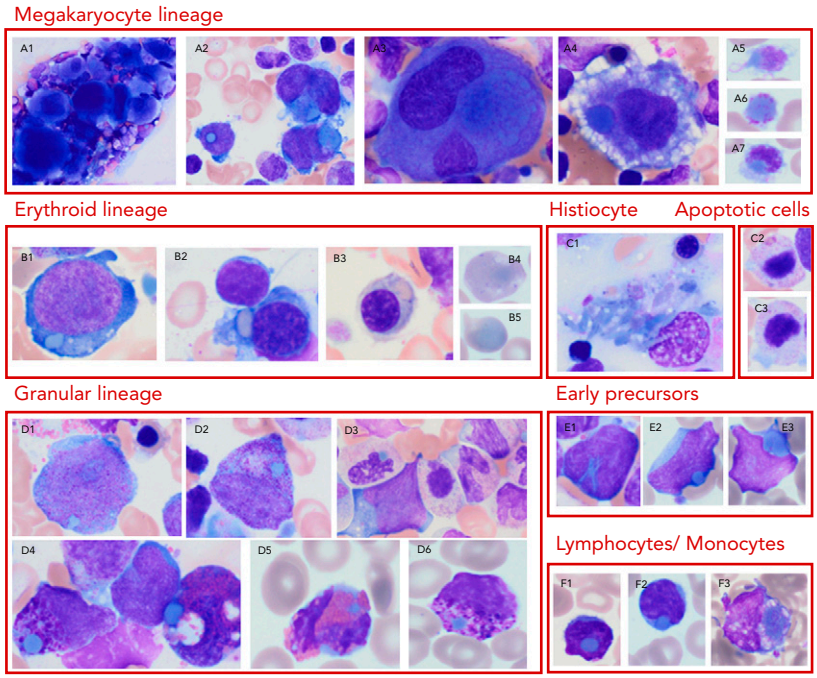
# Brandalise syndrome: a rare inclusion cell disease

**Bérénice Schell and Odile Fenneteau, Hôpital R. Debré**




An infant girl was referred for transfusion-dependent normocytic nonregenerative anemia (hemoglobulin: 75 g/L) and moderate thrombocytopenia (85 × $10^9$/L). Strikingly, bright blue inclusions were noted in the cytoplasm and nucleus (1-5 μm), mostly in myeloid cells (all panels, original magnification ×100, May Grünwald Giemsa stain). The findings were consistent with the Brandalise syndrome, a rare (5 cases described so far in the literature) disorder involving altered actin function. On the blood smear, inclusions were present in all the blood cell lineages in circulation, including transiently circulating early myeloid progenitors (panels E2-3) and in various proportions among all lineages: 80% of the granular cells (panels D5-6), 10% of the lymphocytes (panels F1-2), 5% of the platelets (panels A5-7), and 1% of the red blood cells (panels B4-5). The bone marrow cellularity was increased, and megakaryocytes were abundant. Erythropoiesis was decreased (4.5%). One or few inclusions were found at all stages of maturation in megakaryocytic (panels A1, A4), myeloid (panels D1-4, E1), and erythroid lineages (panels B1-3). Apoptotic myeloid cells and in contrast to findings in Ribeiro et al [*Blood*.1994;83(12):3717-3726], phagocytic histiocytes also contained blue cell inclusions (panels C1-3).

In summary, we describe a new case of Brandalise syndrome, characterized by the presence in all the hematopoietic cell lineages of characteristic bright blue F-actin inclusions.

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DOI 10.1182/blood.2019001167