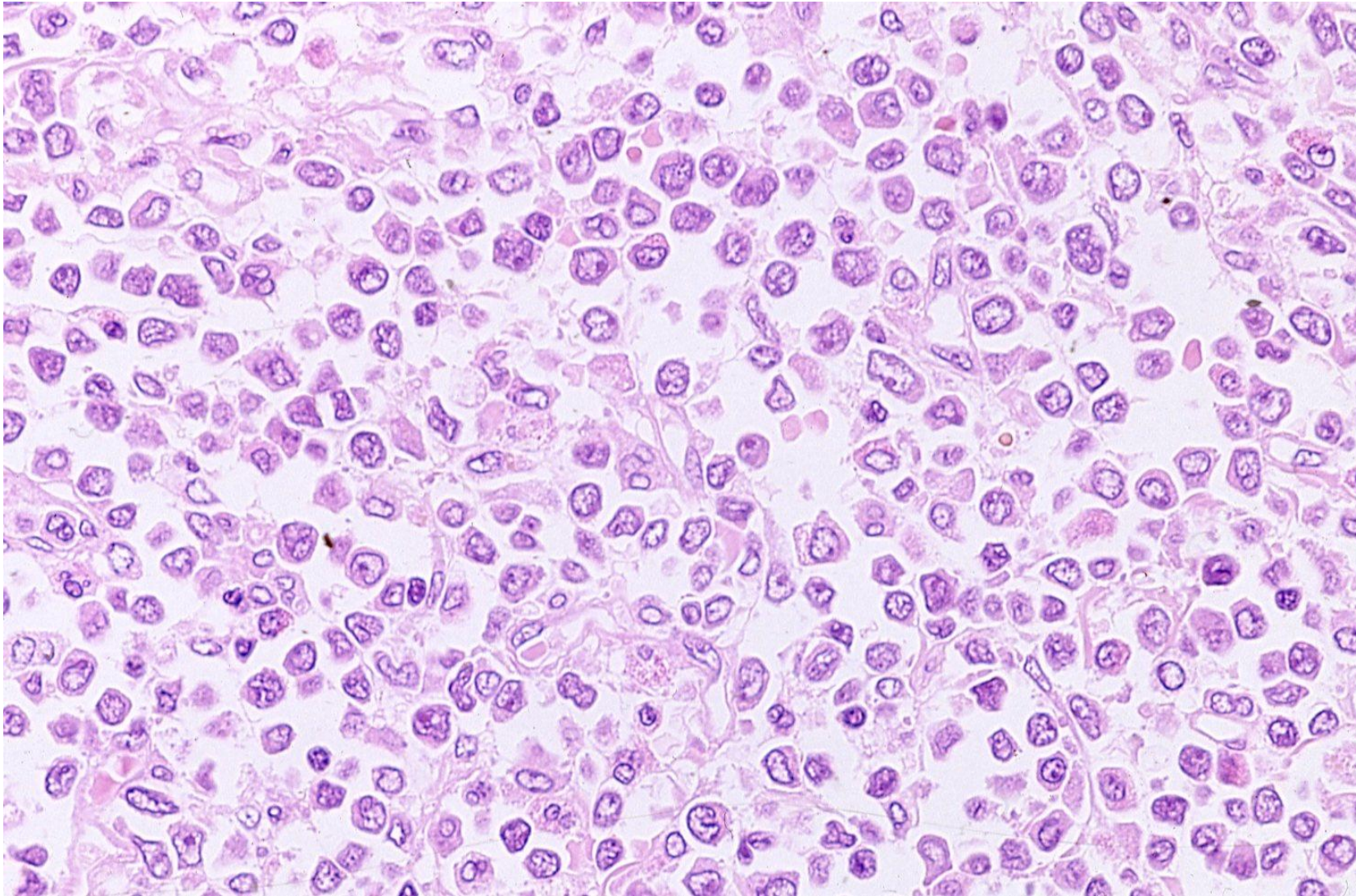


Myeloblastoma (chloroma) of the ileum

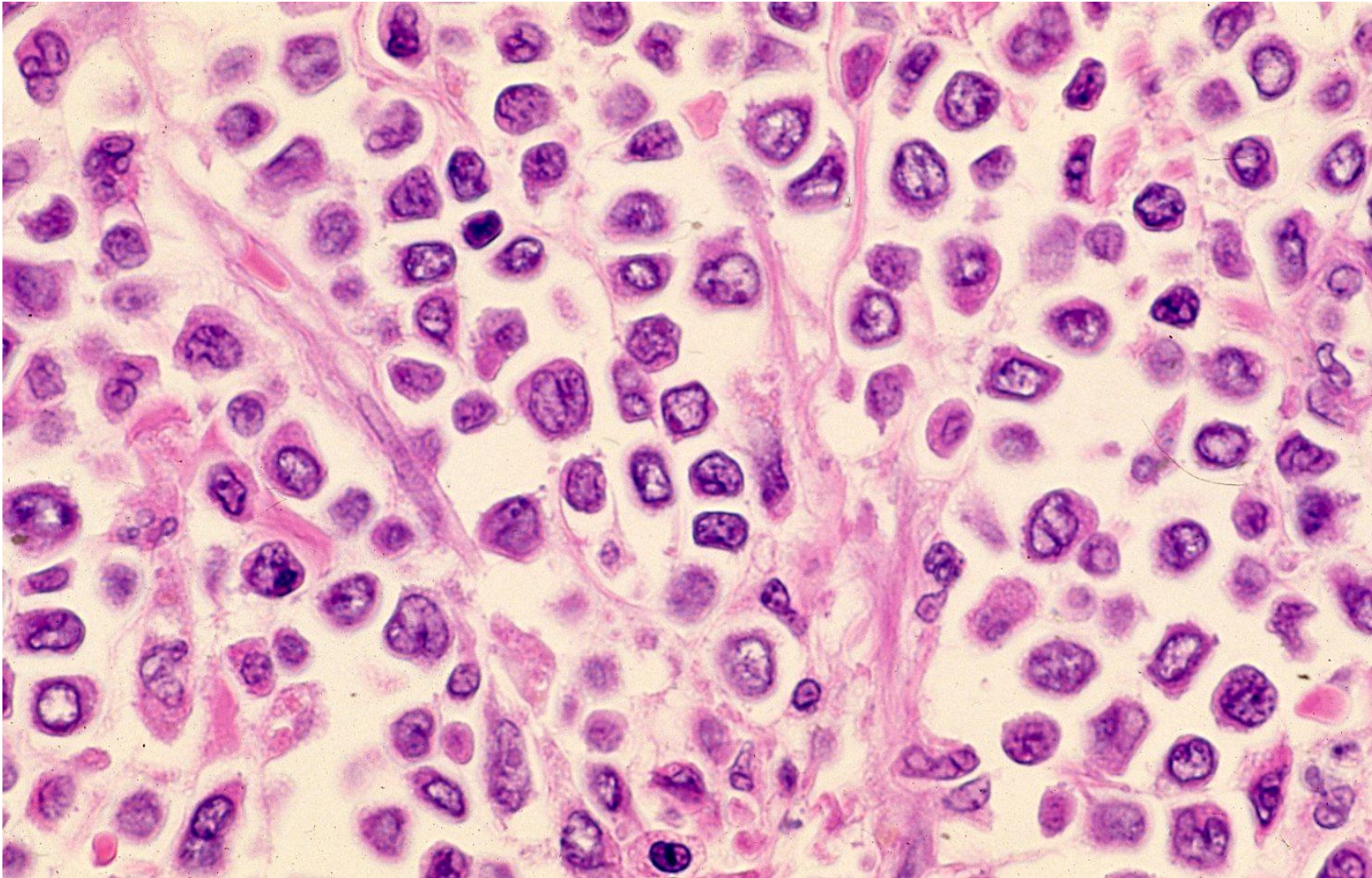
Myeloblastoma (also called as chloroma, myeloid sarcoma or granulocytic sarcoma) is an extramedullary solid tumor of immature myeloid cells. It is an unusual presentation of acute myeloid leukemia (AML) and infrequently chronic myeloid leukemia and myelodysplastic disorders. The common sites of occurrence of myeloblastoma include the lymph node, bone and skin. The small intestinal involvement has also been reported.

A 38 y-o male patient underwent emergency laparotomy due to intestinal obstruction. The transmurally invading neoplastic cells in the ileum occasionally possess lobulated nuclei and granular cytoplasm. The myeloblastoma cells are immunoreactive for CD45 (LCA), lysozyme and nonspecific cross-reacting antigen (detected by antiserum against CEA). Bone marrow involvement was confirmed, and clinical features of AML appeared 2 months later to kill the patient.

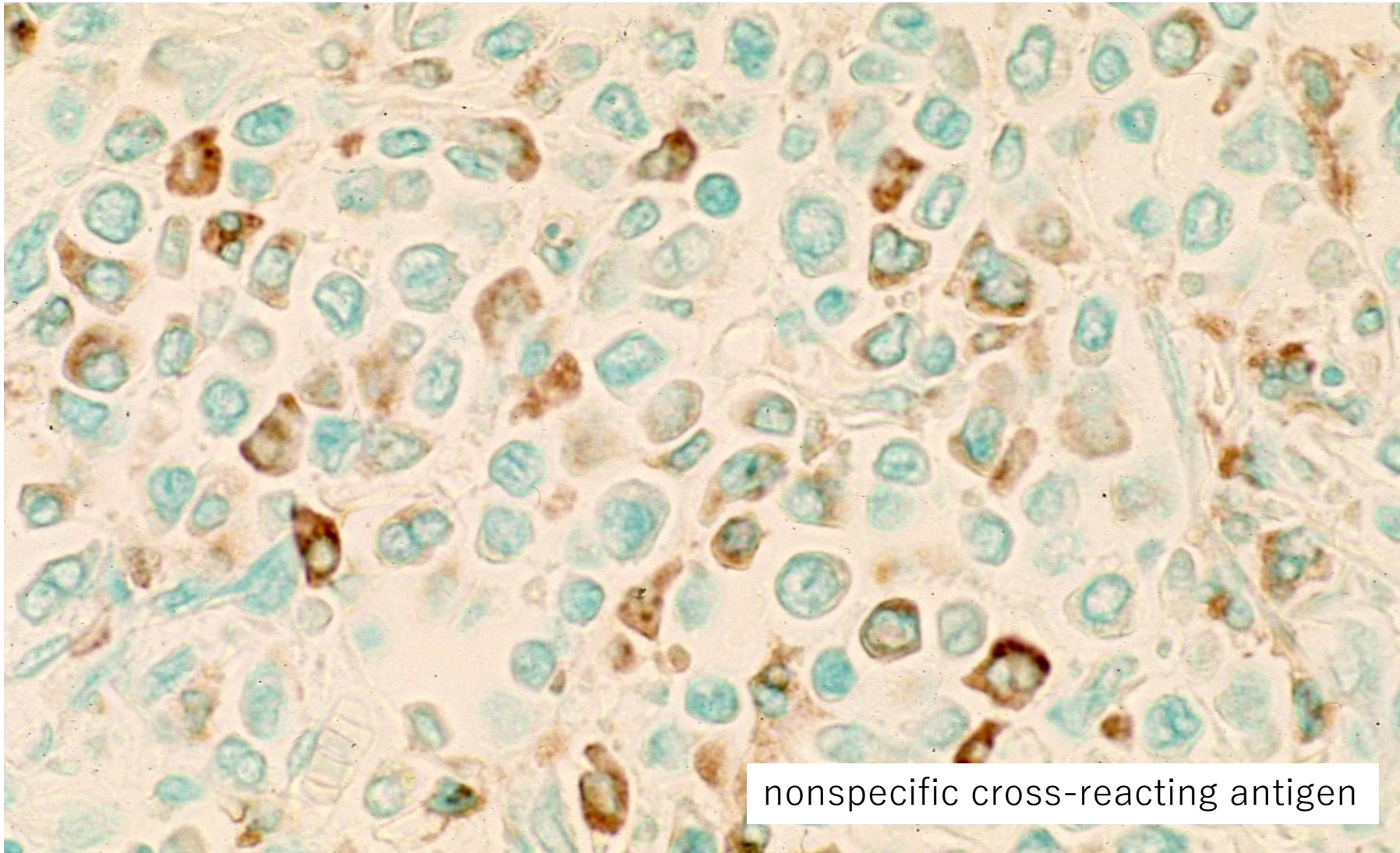
Ref.: Yoshida M, et al. Myeloid sarcoma resulting in a small bowel obstruction with multiple site involvement including ileum and appendix. J Surg Case Rep 2019; 2019(9): rjz248. doi: 10.1093/jscr/rjz248



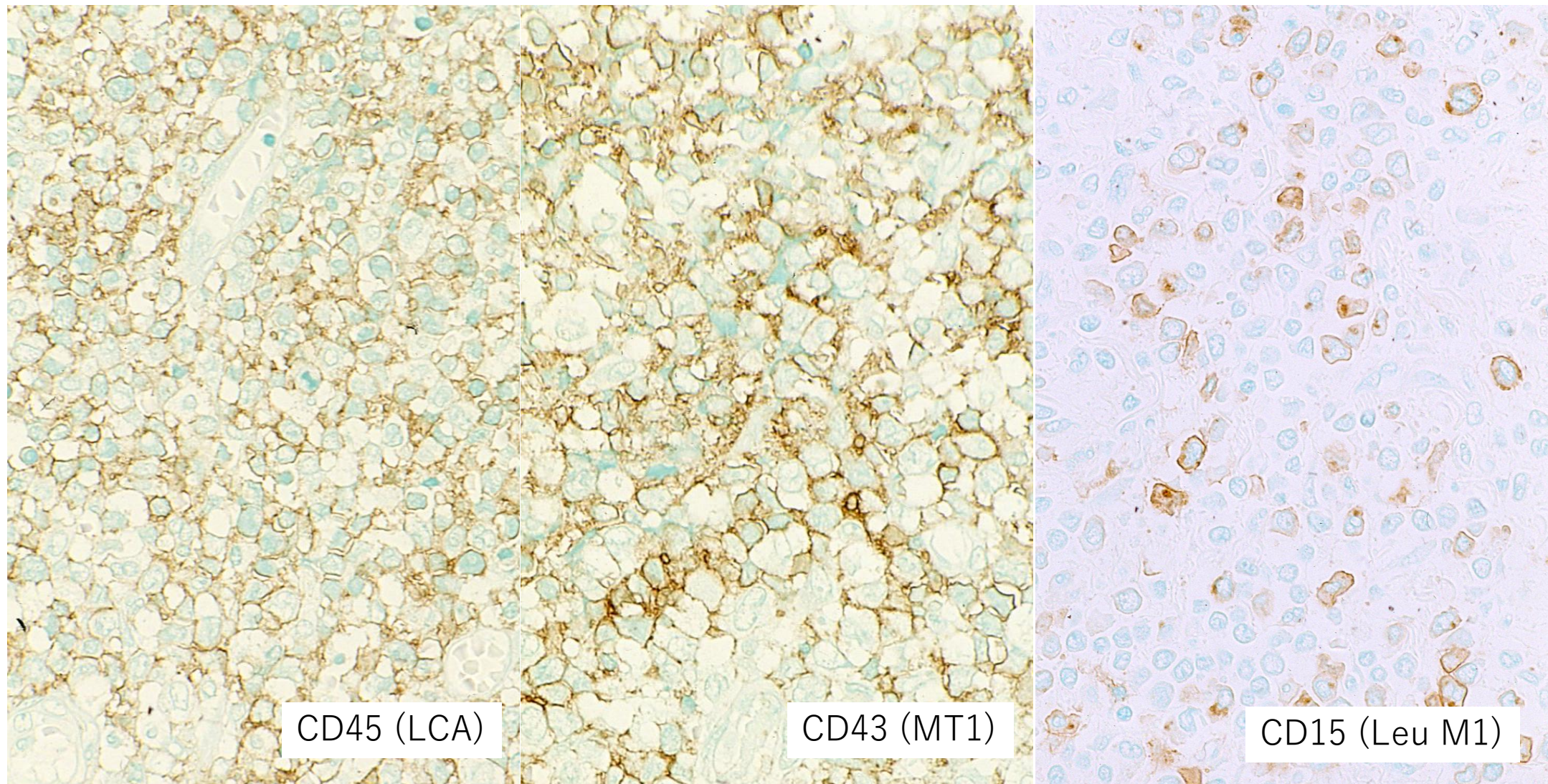
Myeloblastoma (chloroma) of the ileum seen in a 38 y-o male patient (H&E-1). Immature mononuclear cells occasionally with indented nuclei infiltrate transmurally to cause intestinal obstruction.



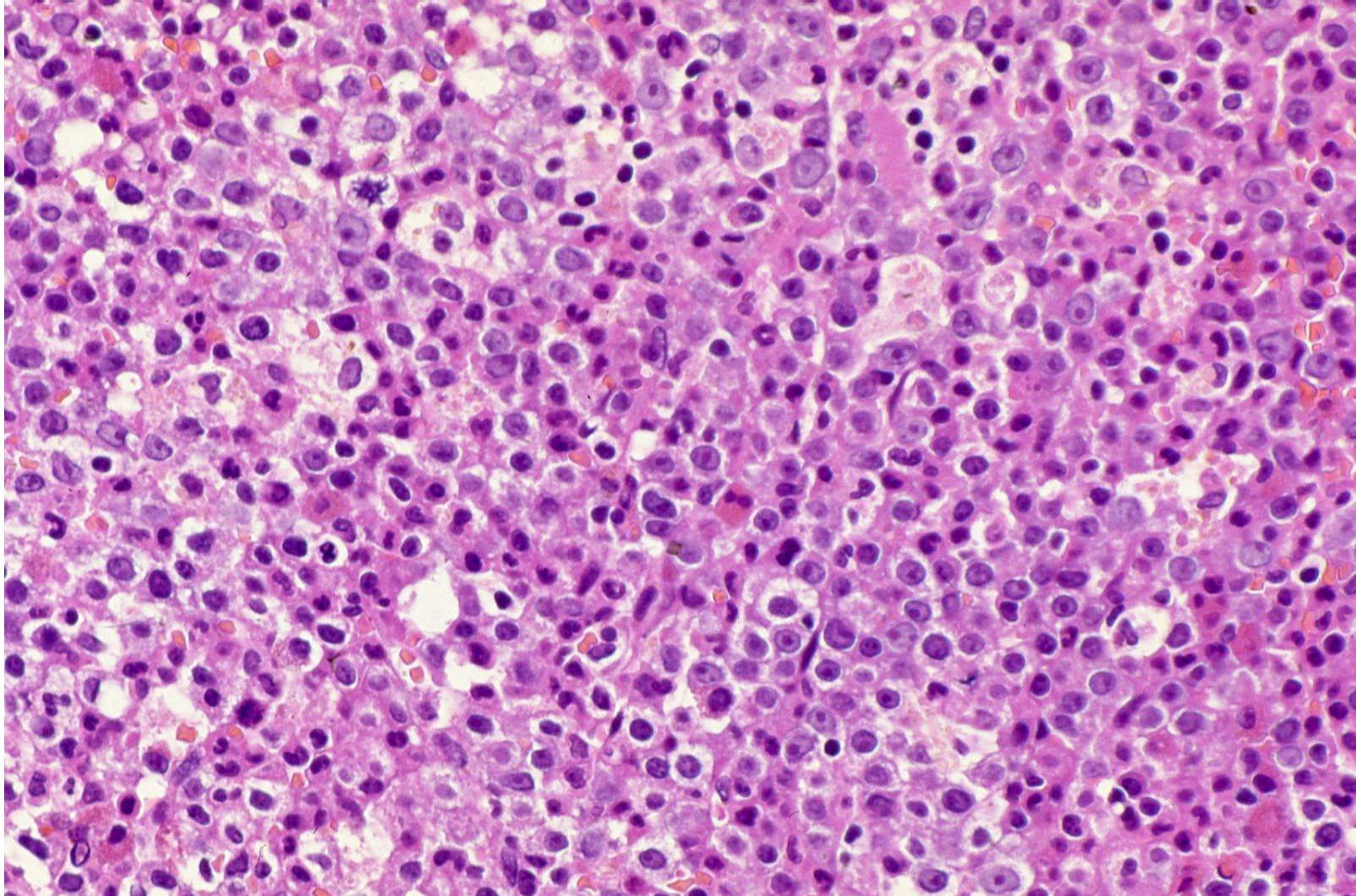
Myeloblastoma (chloroma) of the ileum seen in a 38 y-o male patient (H&E-2). Immature mononuclear cells occasionally with indented nuclei infiltrate transmurally to cause intestinal obstruction. Fine granularity can be traced in the eosinophilic cytoplasm.



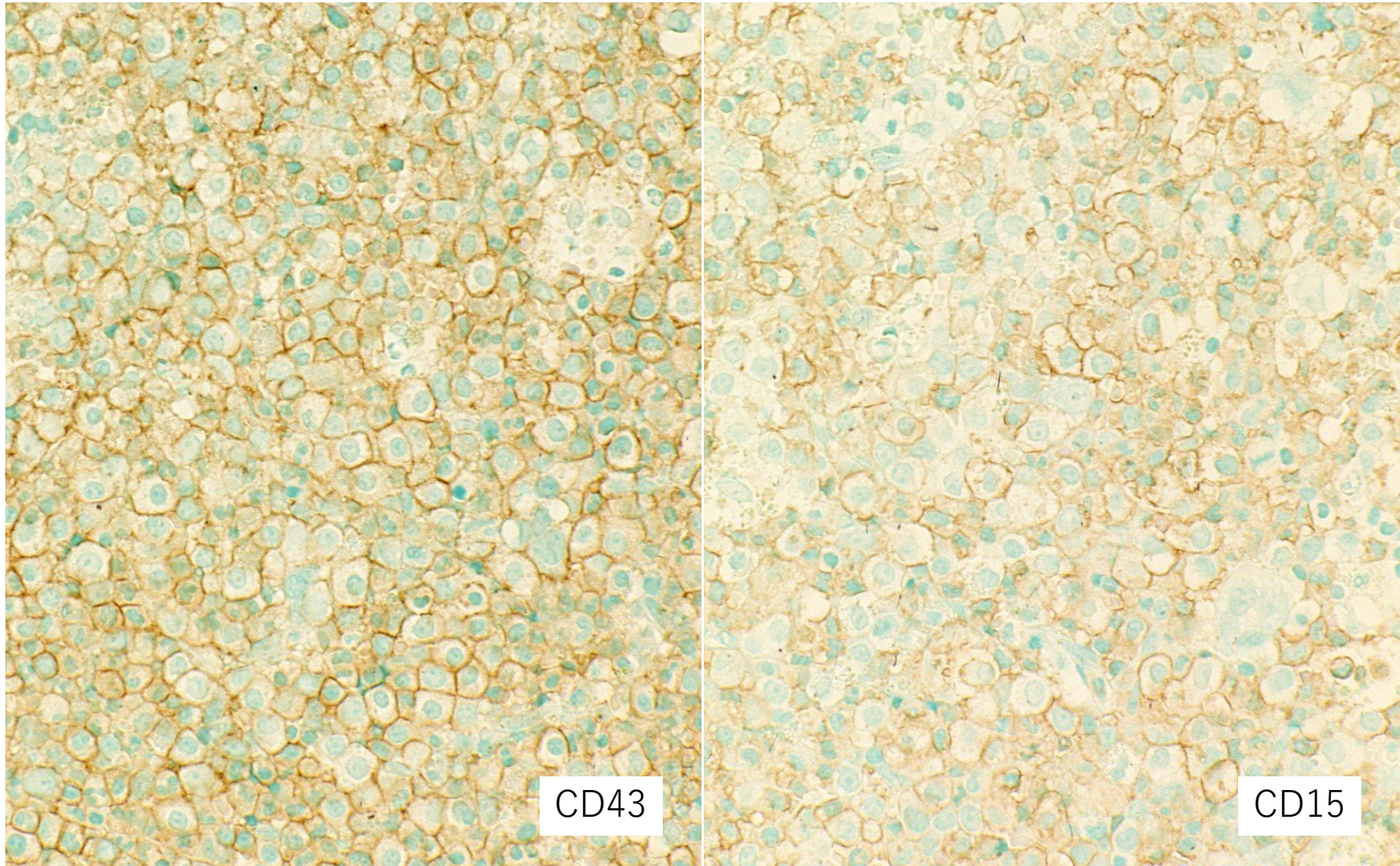
Myeloblastoma (chloroma) of the ileum seen in a 38 y-o male patient (immunostaining with CEA antiserum). Immature mononuclear cells are immunoreactive for nonspecific cross-reacting antigen demonstrated with anti-CEA antiserum. The polyclonal antibody to CEA stains normal and neoplastic granulocytes, as shown herein.



Myeloblastoma (chloroma) of the ileum seen in a 38 y-o male patient (immunostaining for CD45, CD43 and CD15). Immature mononuclear cells are diffusely immunoreactive for CD45 (LCA) and CD43 (MT1). CD15 (Leu M1) is positive in some tumor cells with granulocytic differentiation.



Myeloblastoma (chloroma) of the ileum seen in a 38 y-o male patient (bone marrow aspiration). The bone marrow is diffusely replaced by Immature myeloid cells with eosinophilic granular cytoplasm, confirming the diagnosis of AML (H&E).



Myeloblastoma (chloroma) of the ileum seen in a 38 y-o male patient (bone marrow aspiration). Immunostaining for CD43 and CD15 reveals diffuse expression of both markers on the plasma membrane of the immature myeloid cells. Granulocytic differentiation is evidenced by CD15 expression.