

Images/Videos in Hematology

A case of myelodysplastic syndrome with acute myeloid leukemia or excess blasts

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A 57-year-old man presented with pancytopenia and hepatosplenomegaly. Peripheral smear revealed a leukoerythroblastic picture. Bone marrow aspirate smears revealed marked dysplasia in all three hematopoietic lineages. The morphological changes varied from hyposegmented Pelger–Huet, ring forms to gigantic flower-like forms in neutrophils. The erythroblasts showed budding yeast-like and branching tree-like nuclei [Figure 1]. The erythroblasts showed budding yeast-like and branching tree-like nuclei [Figure 1]. Blasts and myelocytes were

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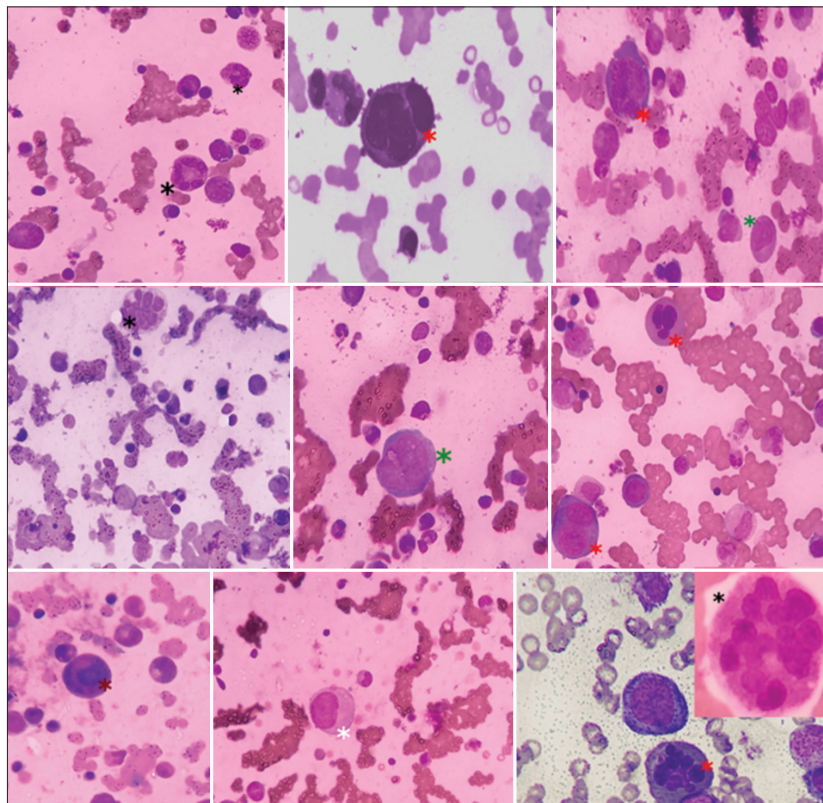
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Figure 1: High-power view of dyspoietic changes observed in erythroid series and granulocytic series of cells marked with stars (black=neutrophil, red=erythroblasts, brown=eosinophil, green=myeloblast, and white=myelocyte) (H&E, ×400).

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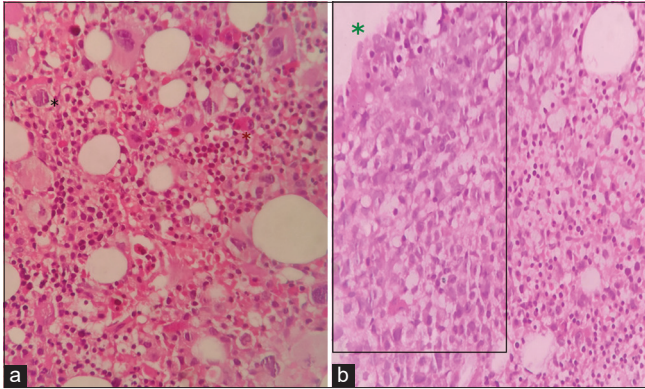


Figure 2: (a) High-power view of bone marrow biopsy showing dyspoietic features in megakaryocytes (black), eosinophils (brown) and (b) paratrabeccular aggregate of blast-like cells (green) (H&E, ×400).

enormously large in size and the bespectacled nucleus of eosinophils had transformed into a telephone receiver like shape. The biopsy revealed paratrabeccular aggregates of large blast-like cells having large prominent nucleoli [Figure 2] which were positive for CD117 but negative for CD34 and HLADR on both flow cytometry and immunohistochemistry. CD34 positivity was found only in 3% of the blasts scattered elsewhere. Cytogenetics for MDS revealed del(7q). Therefore, the case was diagnosed as a myelodysplastic syndrome with excess blasts-1 (2016 WHO Criteria)^[1] with a differential of

acute myeloid leukemia with myelodysplasia-related changes expressing aberrant phenotypes^[2] in view of paratrabeccular cell aggregates showing characteristic myeloblast-like morphology.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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2. Nagy A, Neubauer A. Acute myeloid leukemia with myelodysplasia related changes. *Atlas Genet Cytogenet Oncol Haematol* 2017;21:404-8.

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