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Clinics of Oncology

Clinical Image

Myelomastocytic Leukemia

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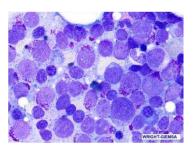
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1. Clinical Image

Myelomastocytic leukemia is a very rare variant of myeloid leukemia, behaves clinically very aggressive and belongs to the group of so-called metachromatic leukemias. Metachromatic leukemias comprise leukemias with at least 10 to 20% tumor cells exhibiting metachromatic granules: mast cell leukemia, acute and chronic basophilic leukemias and tryptase+ acute myeloid leukemia (AML). All metachromatic leukemias are rare and often pose substantial differential diagnostic problems. Myelomastocytic leukemia is always associated with a high-grade myeloid neoplasm, i.e., at least myelodysplastic syndrome of EB2-type, but more often with overt AML. The same is true for mast cell leukemia which is associated with a myeloid neoplasm in much more than 50% of all cases. The disease then is termed SM-AHN (MCL-AHN).

Myelomastocytic leukemia

Bone marrow smear reveals a marked hypercellularity with increase in metachromatic blast cells comprising up to 80% of all nucleated cells. Note that the tumor cells coexpress the antigens tryptase and CD117 immunohistochemically (not depicted) but this is not mast cell leukemia because they exhibit a clear blastoid appearance.



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Reference

1. Jawhar M, Schwaab J, Meggendorfer M, Naumann N, Horny H-P, Sotlar K, et al. The clinical and molecular diversity of mast cell leukemia with or without associated hematologic neoplasm. Haematologica. 2017; 102:1035-1043.

- 2. Valent P, Sotlar K, Blatt K, Hartmann K, Reiter A, Sadovnik I, et al. Proposed diagnostic criteria and classification of basophilic leukemias and related disorders. Leukemia. 2017;31:788-793.
- 3. Horny H-P, Reiter A, Sotlar K, Valent P. Mast cell leukemia: a review. Int J Hematol Oncol. 2014; 3:395-405.
- 4. Valent P, Sotlar K, Sperr WR, Reiter A, Arock M, Horny H-P. Chronic mast cell leukemia: a novel leukemia-variant with distinct morphological and clinical features. Leuk Res. 2015; 39:1-5.
- 5. Horny H-P, Reiter A, Sotlar K, Valent P. Myelomastocytic leukemia: histopathological features, diagnostic criteria and differential diagnosis. Expert Rev Hematol. 2014;7:431-437.
- 6. Horny H-P, Sotlar K, Valent P. Eosinophil, basophil, and mast infiltrates in the bone marrow: crossing the boundaries of diagnosis. J Hematopathol. 2011; 4:101-111.
- 7. Valent P, Sperr WR, Samorapoompichit P, Geissler K, Lechner K, Horny H-P, et al. Myelomastocytic overlap syndromes: biology, criteria, and relationship to mastocytosis. Leuk Res. 2001; 25:595-602.