

# Myelomastocytic Leukemia

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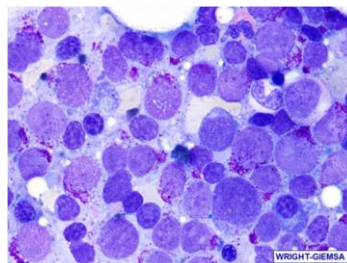
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## 1. Clinical Image

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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