

# A Bone Marrow Examination Can Help You Uncover Systemic Mastocytosis

Bone marrow (BM) is the most common site of extracutaneous accumulation of mast cells in adult systemic mastocytosis (SM)<sup>1,2</sup>



A BM examination is one of several tests that can be used for SM suspicion. Further workup involves assessing if the patient meets WHO criteria for SM diagnosis<sup>3</sup>

**The presence of multifocal dense infiltrates of mast cells ( $\geq 15$  mast cells in aggregates) represents the WHO major diagnostic criterion for SM<sup>3</sup>**

BM examination is also important for WHO minor criteria:<sup>3</sup>

**Aberrant expression of CD25 and/or CD2 and/or CD30**

These markers can be evaluated by serial sections, by immunohistochemistry or by flow cytometry<sup>1</sup>

**The presence of atypical (type I or type II) or spindle-shaped mast cells ( $>25\%$ )**

These aberrant mast cell forms can be evaluated by a BM aspirate smear<sup>1</sup>

DISCOVERSM



# When to Perform a Bone Marrow Examination

ECNM recommends performing a BM examination in patients who exhibit clear signs of SM that trigger suspicion:<sup>2</sup>



Typical skin lesions



Unexplained osteoporosis



*KIT*-activating mutation



Spontaneous anaphylaxis



Unexpectedly high/elevated tryptase levels (>11.5 ng/mL)



REMA score  $\geq 2$



Splenomegaly



Blood cell count abnormalities



**A BM examination is recommended to distinguish between adult cutaneous mastocytosis and SM when typical skin lesions are observed<sup>1</sup>**

For more information, visit: [www.systemicmastocytosis-hcp.com](http://www.systemicmastocytosis-hcp.com)

ECNM=European Competence Network on Mastocytosis; MCAS=mast cell activation syndrome; REMA=Red Española de Mastocitosis (Spanish Network on Mastocytosis); WHO=World Health Organization.

**References:** **1.** Akin C. *Hematology Am Soc Hematol Educ Program*. 2022;2022(1):55–63. **2.** Valent P, et al. *J Allergy Clin Immunol Pract*. 2022;10(8):1999–2012.e6. **3.** Valent P, et al. *Hemasphere*. 2021;5(11):e646.