Multidisciplinary insights: Navigating the challenges of systemic mastocytosis diagnosis and management



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Expert panel



Prof. Dr Vito Sabato (Chair)

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Prof. Prithviraj Bose

Haemato-Oncologist
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Dr Sigurd Broesby-Olsen

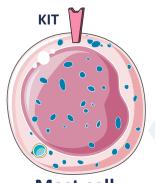
Dermatologist/AllergistOdense University Hospital
Odense, Denmark



How is systemic mastocytosis diagnosed? Exploring the current patient journey



Systemic mastocytosis is a heterogeneous disease





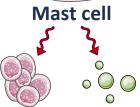
Neoplastic clonal proliferation of abnormal MCs in extracutaneous organs¹

Clinical presentation ranges from indolent to aggressive disease¹

Genetic and molecular abnormalities associated with SM subtypes^{1,2}

 Activating KIT mutations found in a majority of SM cases in adults, regardless of subtype¹

ICC/WHO criteria used to distinguish SM from other MC disorders¹



Clonal expansion

Mediator release

Main symptoms:^{2,3}

- Anaphylaxis
- GI symptoms
- Fatigue

- Flushing, pruritis
- Bone and muscle pain (osteopenia/osteoporosis)





Monomorphic



Polymorphic

Medical images reproduced with permission from Figure 1 in Broesby-Olsen S in EAACI Global Atlas of Skin Allergy. Copyright EAACI 2019.⁵

Mast cell images, receptors and mediators: Servier Medical Art is licensed under CC BY 4.0. See https://creativecommons.org/licenses/by/4.0/.

GI, gastrointestinal; ICC, International Consensus Classification; MC, mast cell; SM, systemic mastocytosis; UP, urticaria pigmentosa; WHO, World Health Organization.

1. Pardanani A. Am J Hematol. 2023;98:1097–116; 2. Lee HJ, et al. Blood Res. 2023;58:S96–108; 3. van der Weide HY, et al. Crit Care. 2015;19:238;





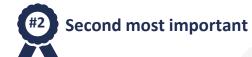
What are the current treatment options for systemic mastocytosis?



* Treatment goals in systemic mastocytosis

HCP-selected treatment goals:







51-item HCP survey 51% A/I specialists and 49% H/O specialists





Improvement of symptoms



Improved PFS/OS



Other goals

- Maintain ability to do usual activities
- Reduction in anaphylactic episodes

- Normal blood counts
- Normalization of bone marrow
- Reduction in steroid use
- Reduction in tryptase levels

A/I, allergist/immunologist; AdvSM, advanced SM; H/O, haematologist/oncologist; HCP, healthcare professional; ISM, indolent SM; OS, overall survival; PFS, progression-free survival; QoL, quality of life; SM, systemic mastocytosis.

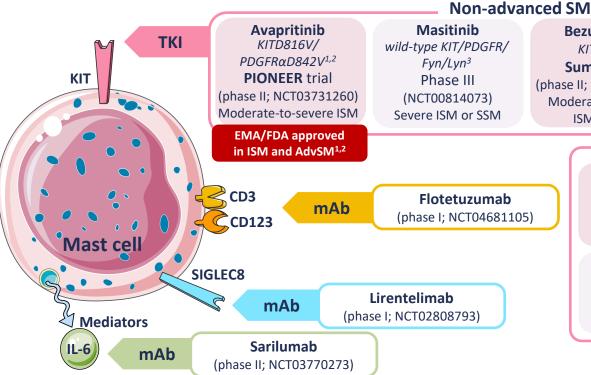
Mesa RA, et al. Cancer. 2022;128:3700-8.



What does the future hold?
Novel and emerging treatment strategies
for systemic mastocytosis



Emerging therapies and indications



Bezuclastinib

KITD816V³

Summit trial

(phase II; NCT05186753)

Moderate-to-severe

ISM or SSM

Elenestinib

KITD816V³

HARBOR trial

(phase II/III;

NCT04910685)

Moderate-to-severe ISM

Advanced SM

Bezuclastinib

KITD816V³

Apex trial
(phase II; NCT04996875)

Ripretinib KIT/PDGFRα³ First in human (phase I; NCT02571036) AZURE trial
(phase I/II; NCT05609942)
Monotherapy and in
combination with
azacitidine

Elenestinib

KITD816V³

Mast cell images, receptors and mediators: Servier Medical Art is licensed under CC BY 4.0. See https://creativecommons.org/licenses/by/4.0/. AdvSM, advanced SM; ISM, indolent SM; mAb, monoclonal antibody; SM, systemic mastocytosis; SSM, smoldering SM; TKI, tyrosine kinase inhibitor.

1. EMA. Avapritinib SmPC. Available at: https://bit.ly/3KoCCJb (accessed 24 May 2024); 2. FDA. Avapritinib PI. Available at:

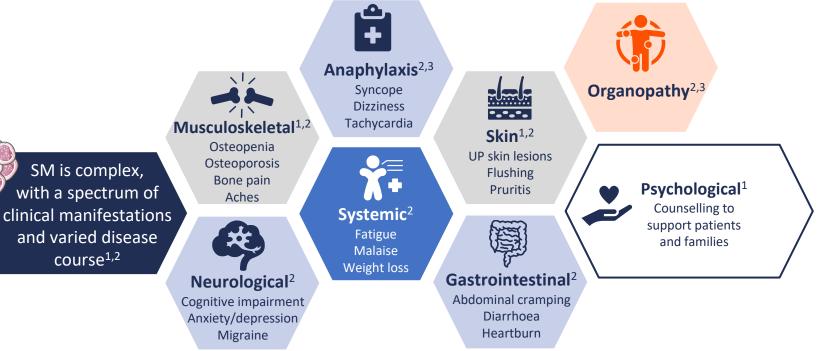
www.accessdata.fda.gov/drugsatfda_docs/label/2023/212608s013lbl.pdf (accessed 24 May 2024); 3. Sciumè M, et al. *Pharmaceuticals (Basel)*. 2022;15:738. Trial information searchable by NCT number at www.clinicaltrials.gov (accessed 13 May 2024).



Can we do more for our patients? Multidisciplinary management approaches



MDT management needs in systemic mastocytosis



Mast cell images: Servier Medical Art is licensed under CC BY 4.0. See https://creativecommons.org/licenses/by/4.0/. MDT, multidisciplinary team; SM, systemic mastocytosis; UP, urticaria pigmentosa.

1. Zanotti R, et al. Mediterr J Hematol Infect Dis. 2021;13:e2021068; 2. Veitch S, Radia DH. Hematology Am Soc Hematol Educ Program. 2023;2023:396–406;

3. Lee HJ, et al. *Blood Res.* 2023;58:S96-108.

course^{1,2}

