Overview of Mast Cell Activation Syndrome some common that are caused by mast cell mediator release NFUROLOGICAL Patients may have a TeW or **many** symptoms headache, brain fog, cognitive dysfunction, anxiety, depression EAR/NOSE/THROAT/RESPIRATOR flushing of the face/neck/chest nasal itching and congestion hives, skin rashes throat itching itching with or without rash and swelling wheezing shortness of breath light-headedness (₁ASTROTNTESTINAL syncope (fainting) rapid heart rate, chest pain diarrhea, nausea, vomiting, low blood pressure abdominal pain, bloating, high blood pressure at the gastroesophageal reflux start of a reaction disease (GERD) blood pressure instability | F | A | GYNECOLOGI bone/muscle pain, uterine cramps osteopenia, osteoporosis bleeding Symptoms can be bladder irritability frequent voiding and SYSTEMIC AND/OR ORGAN_SPECIFIC CTABLF in onset AND MORE anaphylaxis angioedema (swelling) LEARN MORE AT tmsforacure.org https://tmsforacure.org/printable-resources-infographics/

<u>Diagnosis</u>

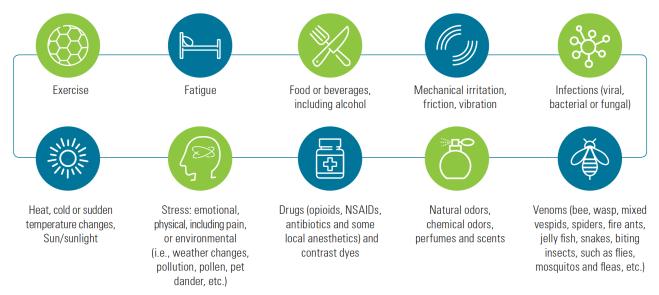
- 1. Allergy symptoms and other symptoms in two or more organ systems that keep coming back or are chronic.
- 2. Higher than normal levels of tryptase, histamine, or prostaglandins in your blood. (Note that this blood test cannot be performed by labs that do not have special equipment, and it has a very high 'false negative' result.)
- 3. Getting better after using antihistamine medications or other drugs that block chemicals released by mast cells.
- Can also use "<u>Validated MCAS Questionnaire</u>" (Afrin, 2014) A score of ≥14 indicates likely MCAS. Don't worry about the questions you cannot answer.

Managing MCAS

There are 3 basic approaches to managing MCAS:

- 1. Identify your triggers and avoid them. Easier said than done, but essential. Medications won't work well if you are constantly exposed to triggers. Trigger sensitivity can vary over time, and often build on one another, so you might react to something one day and not another. You may react to a trigger immediately, or any time within 24-48 hours.
- 2. Take supplements or nutraceuticals (therapeutic foods) that alter the mast cells, histamine, or response to histamine.
- 3. Take medications that alter the mast cells, histamine, or response to histamine. Reliable overview at: https://tmsforacure.org/treatments/medications-treat-mast-cell-diseases/

Common MCAS Triggers. (graphic from <u>www.tmsforacure.org</u>, "The Mastocytosis Chronicles" 2020-21 edition)



Identifying food sensitivities:

- <u>https://www.mastzellaktivierung.info/downloads/foodlist/21_FoodList_EN_alphabetic_withCateg.pdf</u> comprehensive list of foods that are well/not well tolerated, with comments about things like how freshness and other characteristics affect tolerance (e.g., green bananas are better than ripe bananas).
- A helpful app: *Food Intolerances: Histamine, FODMAPs & IBS Guide*. It has a strawberry logo.
- Note that histamine levels in food can change based on how fresh or ripe the food is, so it can be variable.
- Some people don't have enough of the enzyme that normally breaks down histamine in the gut: diamine oxidase (DAO). (Comas-Baste, 2020) DAO supplements are available over-the-counter.

Supplements may help reduce mast cell activity or sensitivity to mast cell mediators. Research shows some benefit from the following: (Uranga, 2020)

- Vitamin C may be a mast cell stabilizer and may help break down histamine
- Flavonoids: quercetin, flavone, luteolin, fisetin, rutin, kaempferol, myricetin, caffeic acid, nobiletin or morin
- Vitamin D, vitamin E, carotenoids
- o Cannabidiol, palmithoethylethanolamide (PEA)
- Omega-3 fatty acids (e.g. fish oil)
- Green tea, Curcumin, Cinnamon extract

Medication options to discuss with your health care provider

o Reliable list of medication: <u>https://tmsforacure.org/treatments/medications-treat-mast-cell-diseases/</u>

Web resources: www.tmsforacure.org,

Good books:

- Lawrence Afrin, MD: Never Bet Against Occam: Mast Cell Activation Disease and the Modern Epidemics of Chronic Illness and Medical Complexity
- Amber Walker, PT: Mast Cells United: A Holistic Approach to Mast Cell Activation Syndrome. Also: The Trifecta Passport