Intestinal Metabolic Bromhidrosis Syndrome (IMBS)

Patient Guide

Introduction

Intestinal Metabolic Bromhidrosis Syndrome is characterized by patients having chronic body odor in general (with or without bad breath).

The medical term for body odor is called Bromhidrosis and the term for bad breath is called Halitosis.

The body odor and bad breath for IMBS patients is caused by odorous intestinal metabolites passing the intestinal barrier and the liver to be excreted by skin glands (Bromhidrosis) or the lung gas exchange (Halitosis).

Regularly the body odor of IMBS patient is recognized as way more pungent compared to normal body odor that is caused by weak hygiene.

Also, its important to note that IMBS patients despite their strong and pungent body odor have no been recognized to be presented with any hygiene issues. In fact (over) increased hygiene will normally not have any beneficial effect.

Different types of body odor (and bad breath)

As IMBS patients share the aspect of having chronic body odor, patient individual smell types will differ with a great variation.

Following smell types are known, but there may be further not yet documented types:

- Fecal like body odor and halitosis (Indole, Skatole)
- Sweat like, sweaty feet and vomit like body odor (Carboxylates, e.g. Butyrate, Isovalerate, …)
- Urine like body odor (Ammonia)
- Rotten or foul eggs like body odor and halitosis (Sulfides)
- Rotten meat like body odor and halitosis (Putrescine)
- Rotten or dead fish like body odor (Trimethylamine)
- Cabbage like body odor and halitosis (Methanethiol)

In brackets the likely affected intestinal metabolites are mentioned.

It is possible that IMBS patients do only show a single body odor or halitosis type, but a large part of the patients does report various body odors that are influenced by:

- Diet
- Menstrual cycle
- Stressful events
- Exercise
- ….

Diagnostic

At this point in time official medical diagnostic is only available for three diseases:

- Trimethylaminuria (TMAU) [1] [2] [3]
  - TMAU urine test (Trimethylamine to Trimethylamine N-oxide ratio)
  - Genetic test for FMO3 gene defects
- Dimethylglycinuria [4] [5]
  - Urine test (Dimethylglycine)
  - Genetic test for DMGDH gene defects
- Methanethiol oxidase deficiency (EHMTO) [6] [7]
  - Genetic test for SELENBP1 gene defects

Treatment

At this point in time official treatment options for chronic body odor underlying diseases are limited.

Trimethylaminuria

- Choline, Betaine, Lecithin, Carnitine reduced diet
- Riboflavin supplementation[8]

Patient organizations/support groups

Currently known patient support groups are the following:

- IMBS Alliance (www.imbs-alliance.org)
- MEBO (www.meboresearch.org, www.meboresearch.co.uk and www.meboblog.com)

Community

- RareConnect (www.rareconnect.org)

Contact and feedback

If patients need first support where to find information around their disease and/or related patient communities do not hesitate to contact:

support@imbs-alliance.org

Any feedback (critic, improvement suggestions, …) around this patient guide is welcome and can be sent to the following email address: feedback@imbs-alliance.org

[1] https://omim.org/entry/602079
[2] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3848652/
[3] https://doi.org/10.1016/j.drudis.2020.06.026
[4] https://www.omim.org/entry/605850
[5] https://www.metagene.de/diseases/DIMETHYLGLYCINURIA(DMGDHD).html
[6] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5742538/
[7] https://www.omim.org/entry/618148
[8] https://doi.org/10.1016/j.drudis.2020.06.026