

Alpha 1 Antitrypsin MZ Information & Research

News & Research Update

Apr 13, 2024

Website status and research update

Dear subscribers,

Hope you are all doing fine!

For us, it was a busy but good week. In our part of the world, spring is breaking, the sun is coming out, and temperatures are getting nice and warm!!

And don't forget that this is an opportunity for us Alpha1 MZs to be outside and enjoy the sun to reload our Vit D25 levels!

This week, we have two items for you: an update on the website and an update on the pregnancy issues you may encounter as an Alpha1 MZ.

Website

As you may have noticed, we have started adding different languages to our website. Although the website's software is doing a lot of the translation work, it still needs to be read and checked. This is all still a work in progress, and the first language is in there now as a test; soon, more will follow.

We are doing this to empower all 35 Million Alpha1 MZ globally with solid information and research about Alpha1 MZ.

Pregnancy / Preeclampsia

About two weeks ago, we added a section to the website about the high prevalence (risk ratio of ~ 1:15) of cholestasis during pregnancy in the MZ group. Because of this article, one of our members pointed us to preeclampsia (Hypertension during pregnancy). Thanks to her, we found a study in Denmark from 2023.

According to this study, there is a high prevalence of pregnancy issues under Alphas like Preeclampsia, Low birth weight / Size, and preterm birth.

This paper reports the following;

- Preeclampsia; Risk Ratio = 2.64
- Low birth weight <2500g; Risk Ratio = 2.04,
- Lowest quartile of abdominal circumference at birth in children Risk Ratio = 1.55
- Delivery via Cesarean-section; Risk Ratio = 1.59
- Preterm birth; Risk Ratio = 1.54

Although the cause of Preeclampsia is not known (See Footnote), the higher risk ratio of ~2.64 for Alpha1 MZs may be explained by the known reduced capacity of the PiMZ liver and the biliary tract issues, which is causing absorption issues in the Ileum part of the small intestine and leads to nutrition deficiencies like, e.g., Calcium. We should also not forget the Anti-inflammatory and immune regulatory properties of Alpha 1 Antitrypsin, where a deficiency can also play a role during pregnancy.

There is a Preeclampsia organization, which I already contacted to inform them about our findings, which may help them in their research of the cause of Preeclampsia.

Please note that with 35M mostly undiagnosed MZs, a sizeable part of the preeclampsia numbers may be explained, or at least give them a direction.

For discussions about these subjects, follow us on Facebook. See the link below.

Footnote: The true cellular and molecular mechanisms underlying preeclampsia remain largely unexplained, which are assumed to be a two-stage process of impaired uteroplacental perfusion with or without prior defective trophoblast invasion (stage 1), followed by general endothelial dysfunction and vascular inflammation that lead to systemic organ damages (stage 2). Although the causes of preeclampsia are multi-factorial and cannot be described in a simple way, the aforementioned theories may provide a reasonable explanation for the results observed in past studies. Nevertheless, the detailed etiology, pathophysiology, and effect of preeclampsia seem complicated and remain to be clarified.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9962022/>