

Alpha 1 Antitrypsin MZ Information & Research

News & Research Update

Mar 16, 2024

Website status and research update

Dear subscribers,

We made good progress..! We are now in contact with a large group of medical professionals to discuss and potentially find the relationship between Alpha 1 MZ and B12 deficiencies. The idea is that we present our findings for discussion/review during one of their meetings.

Even more exciting news is that we found a key difference between a ZZ and an MZ liver by examining the Pi-MZ liver research papers in depth.

The reason behind the deep dive is that the research papers show more biliary tract issues in MZs compared to, e.g., ZZs.

Please note that a reduction of bile acid typically causes biliary tract issues like gallstones and gallbladder issues.

What we found is quite interesting, which may explain a reduced bile acid and, as such, explain a lot of issues we see, like biliary tract issues, including the B12 and Vit D deficiencies.

What we noticed in the research papers is that in Pi-MZ livers all hepatocytes from adjacent lobules are affected by the Z protein. The intensity decreases from the Periportal zone, where it involves the whole cytoplasm, to the Midlobular zone and the Pericentrum zones.

In contrast, in Pi-ZZ livers, it was mainly restricted to the periportal zone hepatocytes filling up the entire cytoplasm or unevenly distributed in the intralobular hepatocytes.

In Pi MZ patients it also involved more hepatocytes, and not only the hepatocytes but also endothelial cells of portal vessels.

In simple terms, in the case of an Alpha 1 ZZ individual, the damage to the liver is restricted to the Periportal zone, while in an Alpha 1 MZ, there is also damage in the Midlobular zone and in the Pericentrum zone. (so the whole liver is affected).

The hypothesis is that this may result in a functional capacity loss of the liver, especially at an older age, which may result in reduced bile acid production.

See below a picture explaining the structure of the liver.

