

## **NDA grant 2022 report: Comorbidities and effects of dietary treatment with gluten-free diet in dermatitis herpetiformis**

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Dermatitis herpetiformis (DH) is an extraintestinal manifestation of celiac disease, in which genetically predisposed individuals develop a reaction to dietary gluten. DH rash is characterized as an extremely pruritic, blistering and papular rash on the extensor surfaces of the limbs, buttocks and scalp. Patients with DH also have a celiac-type systemic disease with the circulating transglutaminase antibodies and a varying degree of gluten-sensitive enteropathy. Certain comorbidities, such as vascular diseases, have been associated with celiac disease, while research on the vascular comorbidities of DH is scanty.

Using cohorts of celiac disease and DH patients and a national hospital discharge register as a data source, we assessed the risk for vascular diseases in patients with dermatitis herpetiformis (DH) and celiac disease. In DH the risk for cerebrovascular diseases was found to be decreased, while in celiac disease an elevated risk for cerebrovascular and cardiovascular diseases was seen. The degree of small bowel mucosal damage did not seem to account for the vascular morbidity risk. Thus, the explanation behind the differences seen in the vascular morbidities between the two phenotypes of celiac disease is unclear. We have an on-going prospective study examining the health effects of GFD in patients with DH and celiac disease, especially concentrating on the effects on cardiovascular risk factors. The patient recruitment is finished and the data will be analyzed as soon as the last study participants have completed the follow-up. This study could potentially unveil some of the mechanisms behind these contradictory findings of differing vascular risk profiles of DH and celiac disease patients.

The generous Nordic Dermatology Association grant 2022 allowed me to finish the manuscript related to the study. In June 2023 the manuscript (Risk of vascular diseases in patients with dermatitis herpetiformis and coeliac disease: a long-term cohort study) was published in *Annals of medicine*.

Next we will also study the neurological and psychiatric morbidity of DH and celiac disease patients using similar study methods as in the previous study.