Highest Prevalence of Dermatitis Herpetiformis to Date in a Study Performed at Tampere University Hospital, Finland

The incidence and prevalence of coeliac disease has increased sharply due to improved knowledge of subclinical forms and serological testing, while the prevalence and incidence of dermatitis herpetiformis have been studied only sparsely. Salmi et al. have shown recently that the prevalence of DH has increased, but a significant decrease in the incidence of dermatitis herpetiformis occurred in the 1990s in contrast to the incidence of coeliac disease.

This is a summary of a paper recently published by Salmi et al. The full reference for the article is: Salmi TT, Hervonen K, Kautiainen H, Collin P, Reunala T. Prevalence and incidence of dermatitis herpetiformis: a 40-year prospective study from Finland. Br J Dermatol 2011; 165: 354-359.

Dermatitis herpetiformis is an extraintestinal manifestation of coeliac disease, presenting with blistering rash and pathognomonic cutaneous IgA deposits, which responds to gluten-free diet treatment. With the availability of immunoglobulin A (IgA) class endomysium (EmA) and tissue transglutaminase antibody measurements it has become possible to detect coeliac disease more efficiently. Serological studies have shown that the prevalence of coeliac disease is as high as 1-2% in Europe and North America, but the prevalence figures for DH date back to more than 20 years ago (10.4-39.2 per 100,000).

The Department of Dermatology of Tampere University Hospital has prospectively collected data on all patients with DH in a defined area from 1970 onwards. The diagnosis of DH was based on clinical findings and the presence of granular IgA deposits in the upper papillary dermis. A total of 477 patients with DH were diagnosed during 1970 to 2009 in Tampere; of these, 74 had died and 41 had moved out of the Tampere district. At the end of 2009, there were 363 patients with DH living in the area, giving a prevalence of 75.3 per 100,000. This is the highest reported prevalence of DH to date. A total of 172 patients with DH were diagnosed in 1980 to 1989, 100 in 1990 to 1999 and 104 in 2000 to 2009. The annual incidences in these periods were 5.2 (95% confidence interval (CI) 4.4-6.0), 2.9 (2.3-3.5), and 2.7 (2.2-3.3) per 100,000, respectively. The decrease in incidence rate between the first and second period was statistically significant (p<0.001). The mean age at diagnosis increased during the four decades, from 35.3 to 51.1 years in males, and from 36.3 to 45.8 years in females.

The authors speculate that the reason for the decreased incidence of DH in the 1990s could be the increased recognition of subclinical coeliac disease. This fits with the authors' previous suggestion that clinically silent coeliac disease could be a prerequisite for the development of DH. The authors further suggest that a lower lifetime gluten load might explain the increasing age at the time of DH diagnosis (the annual consumption of cereals per person has decreased from 150 to 71 kg during the past 50 years).

The authors conclude that the highest prevalence for DH reported to date was 75.3 per 100,000. The incidence of DH was also high, but a significant decrease occurred during the 1990s, and during the last decades the mean age at diagnosis has increased to 49 years.



The first author of the study, Teea Salmi, is a dermatologist at Tampere University Central Hospital. The study group has investigated DH in Tampere University Hospital since the 1970s and the group collaborates with the Celiac Disease Study Group in Tampere.

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