An Exception Within the Group of Autoimmune Blistering Diseases: Dermatitis Herpetiformis, the Gluten-Sensitive Dermopathy

Sarolta Kárpáti, MD, PhD, DrSc[a,b,*]

KEYWORDS

• Dermatitis herpetiformis • Gluten sensitivity • IgA precipitate
• Transglutaminase autoimmunity

Dermatitis herpetiformis (DH) is special among the classic autoimmune blistering skin diseases when considering its dermatologic symptoms, associated diseases, and pathomechanisms. The granular IgA precipitates present at the tips of the papillary dermis of the patients, an observation made by van der Meer in 1969 in Groningen,[1] proved to be pathognomonic for the disease. Contrary to other autoimmune blistering diseases, whereby tissue-bound and serum autoantibodies bind the same target molecule in the skin, no circulating IgA has been detected in DH sera reacting with normal tissue components of the sub-basal membrane zone or any other connective tissue particles within the healthy papillary dermis. The antigenicity of skin-bound IgA remained unknown for 3 decades, until 2002, when epidermal transglutaminase (TG3) was identified by the author's research group as its main antigen, an enzyme never detected in that area of the normal skin.[2] It has also been confirmed that DH patients have serum IgA autoantibodies to TG3. This article focuses on the clinical data concerning DH, rather than its detailed pathomechanism.

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[a] Department of Dermatology, Venereology and Dermato-Oncology, Semmelweis University, Mária utca 41, Budapest 1085, Hungary; [b] Hungarian Academy of Sciences, Molecular Research Group, Mária utca 41, Budapest 1085, Hungary
* Corresponding author. Hungarian Academy of Sciences, Molecular Research Group, Mária utca 41, Budapest 1085, Hungary.
E-mail address: skarpati@t-online.hu

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SKIN SYMPTOMS AND DISEASE MANAGEMENT

DH can start at any age; rarely, it can be present in toddlers or in the very elderly, but the mean onset is generally in young adulthood or middle age. It is a chronic, very pruritic skin disease, characterized by 1- to 3-mm large papules, seropapules, vesicles, crusted erosions, and excoriations (**Fig. 1**). Rarely, larger blisters can also develop. The lesions heal with hypopigmentation or hyperpigmentation. In young patients, urticarial plaques might be the predominant skin symptoms (**Fig. 2**). The severe pruritus and scratching can result in extended lichenification (**Fig. 3**). In the majority of cases DH is a polymorphic skin disease, and only rarely presents as a bullous dermatosis.[3–5] Specific symptoms, not always present, are purpura on the fingers and toes, which alone may focus attention on the diagnosis (**Fig. 4**).

DH has a typical distribution of the skin symptoms; these are, in order of frequency (strongly supported by the author's personal observations): 1, elbows and knees; 2, buttock; 3, shoulders, middle line of the back, and scapula; 4, scalp; 5 (rarely), purpura on the fingers and toes (see **Figs 1–4**).[3,4]

Although severe DH is almost a continuous disease with some fluctuation in the severity and itch, it might also present as a relatively mild lichenification, with alternating

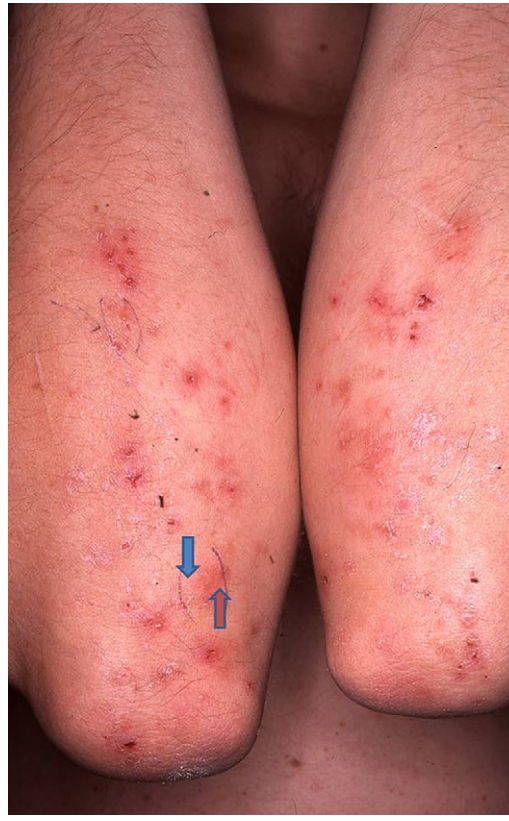

Fig. 1. Grouped polymorphic eruption above the elbows in dermatitis herpetiformis. Red arrow indicates the best site for a lesional biopsy for routine histology, and the blue arrow the best site for a perilesional biopsy for direct immunofluorescence.