

# Dermatitis Herpetiformis in a 39-Year-Old Male with Elevated Deamidated Gliadin Antibodies: A Case Report

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## Abstract

Dermatitis herpetiformis is an autoimmune blistering disorder associated with gluten sensitivity and celiac disease. We present a case of a 39-year-old male with histopathologically confirmed dermatitis herpetiformis, exhibiting significantly elevated levels of deamidated gliadin peptide (DGP) antibodies (IgA and IgG). This case highlights the importance of serological testing in diagnosing dermatitis herpetiformis and underscores the association between dermatitis herpetiformis and celiac disease. (**International Journal of Biomedicine. 2025;15(2):420-421.**)

**Keywords:** dermatitis herpetiformis • deamidated gliadin peptide • celiac disease

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## Introduction

Dermatitis herpetiformis is characterized by intensely pruritic papules and vesicles, predominantly on extensor surfaces. It is considered a cutaneous manifestation of celiac disease, with both conditions sharing a common pathogenesis linked to gluten sensitivity.<sup>1</sup> The presence of IgA deposits in the dermal papillae is a hallmark of dermatitis herpetiformis.<sup>2</sup> However, although Granular IgA deposition at the dermo-epidermal junction on immunofluorescence is considered pathognomonic, alternative immunofluorescence patterns have been reported, particularly fibrillar IgA deposition.<sup>3</sup> Because dermatitis herpetiformis is considered a cutaneous manifestation of celiac disease, duodenal biopsy in cases of proven dermatitis herpetiformis is not strictly necessary, although it is the gold standard for diagnosing celiac disease.<sup>4</sup>

## Case Presentation

A 39-year-old male presented with a two-month history of pruritic vesicular eruptions on his arms, elbows, knees, and buttocks. He reported gastrointestinal symptoms since childhood. Physical examination revealed grouped vesicles on erythematous bases, consistent with dermatitis herpetiformis (Figures 1 and 2).

Histopathological examination of a lesional skin biopsy showed subepidermal blistering with neutrophilic micro-abscesses in the dermal papillae. Direct immunofluorescence demonstrated granular IgA deposits in the dermal papillae, confirming the diagnosis of dermatitis herpetiformis.<sup>5</sup> Serological tests revealed elevated deamidated gliadin peptide (DGP) antibodies: IgA, 131 U/mL (reference value <12 U/mL), and IgG, 70.3 U/mL (reference value, 12-18 U/mL). These findings are indicative of gluten sensitivity and suggest an underlying celiac disease.<sup>6</sup>



**Fig 1.** Pruritic vesicular eruption on the heads of the metacarpal bones



**Fig. 2.**Crustous changes on the knees after the rupture of vesicles

## Discussion

Dermatitis herpetiformis is strongly associated with celiac disease, even in the absence of gastrointestinal symptoms. The elevated DGP antibodies in this patient reinforce the link between dermatitis herpetiformis and gluten sensitivity. Serological testing for DGP antibodies is valuable in diagnosing dermatitis herpetiformis and assessing adherence to a gluten-free diet.<sup>7</sup>

The pathogenesis of dermatitis herpetiformis involves IgA antibodies targeting epidermal transglutaminase, resulting in the deposition of immune complexes in the skin. In patients with IgA deficiency, IgG anti-DGP or anti-tTG is used.<sup>8</sup>

A strict gluten-free diet is the cornerstone of management, resulting in the resolution of skin lesions and normalization of serological markers.

**In conclusion**, this case highlights the importance of considering dermatitis herpetiformis in patients with pruritic vesicular eruptions and the importance of serological testing in diagnosing dermatitis herpetiformis and its associated condition, celiac disease. Early recognition and treatment, along with a gluten-free diet, are essential for optimal patient outcomes.

## Competing Interests

The authors declare that they have no competing interests.

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