

SHORT COMMUNICATION

Persistent Papulosquamous Dermatitis as an Early Cutaneous Manifestation of Celiac Disease

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Celiac disease (CD) is a gluten-induced autoimmune disorder resulting in small bowel villous atrophy and malabsorption that affects up to 1% of the United States population.¹ Beyond its gastrointestinal findings, CD has a broad spectrum of clinical phenotypes. Here we discuss a case of chronic, refractory papulosquamous dermatitis preceding an eventual diagnosis of CD.

A healthy 36-year-old woman was referred to dermatology after a one-year history of persistent, asymptomatic rash. Physical exam was notable for scaly, hypopigmented papules and plaques on the abdomen and bilateral lower posterior flanks (Figure 1). Potassium hydroxide preparation from skin scraping was equivocal for fungal elements, but given the suggestive physical exam, an initial diagnosis of pityriasis versicolor was made. Over the next six months, the patient was treated with various combinations of anti-fungals without improvement, including topical pyrithione zinc, selenium sulfide, and ketoconazole, as well as oral fluconazole and itraconazole.

The rash continued to progress, now also involving the face, shoulders, upper arms, and back. Punch biopsy of a lesion showed mild hyperkeratosis overlying normal stratum corneum (Figure 2). Periodic acid



Figure 1. Scaly, hypopigmented plaques observed on the patient's flank

Schiff staining was negative for fungi. Histopathology and cutaneous exam were most consistent with a nonspecific papulosquamous dermatitis only morphologically resembling pityriasis versicolor. Over the next 6 months, mid and high potency topical corticosteroids and narrowband UVB phototherapy (~50 treatments) proved to be ineffective.

Following an episode of left lower quadrant pain almost two years after the initial cutaneous eruption, laboratory workup was notable for an elevated tissue transglutaminase IgG antibody titer. Subsequent esophagogastroduodenoscopy with duodenal biopsy revealed villous

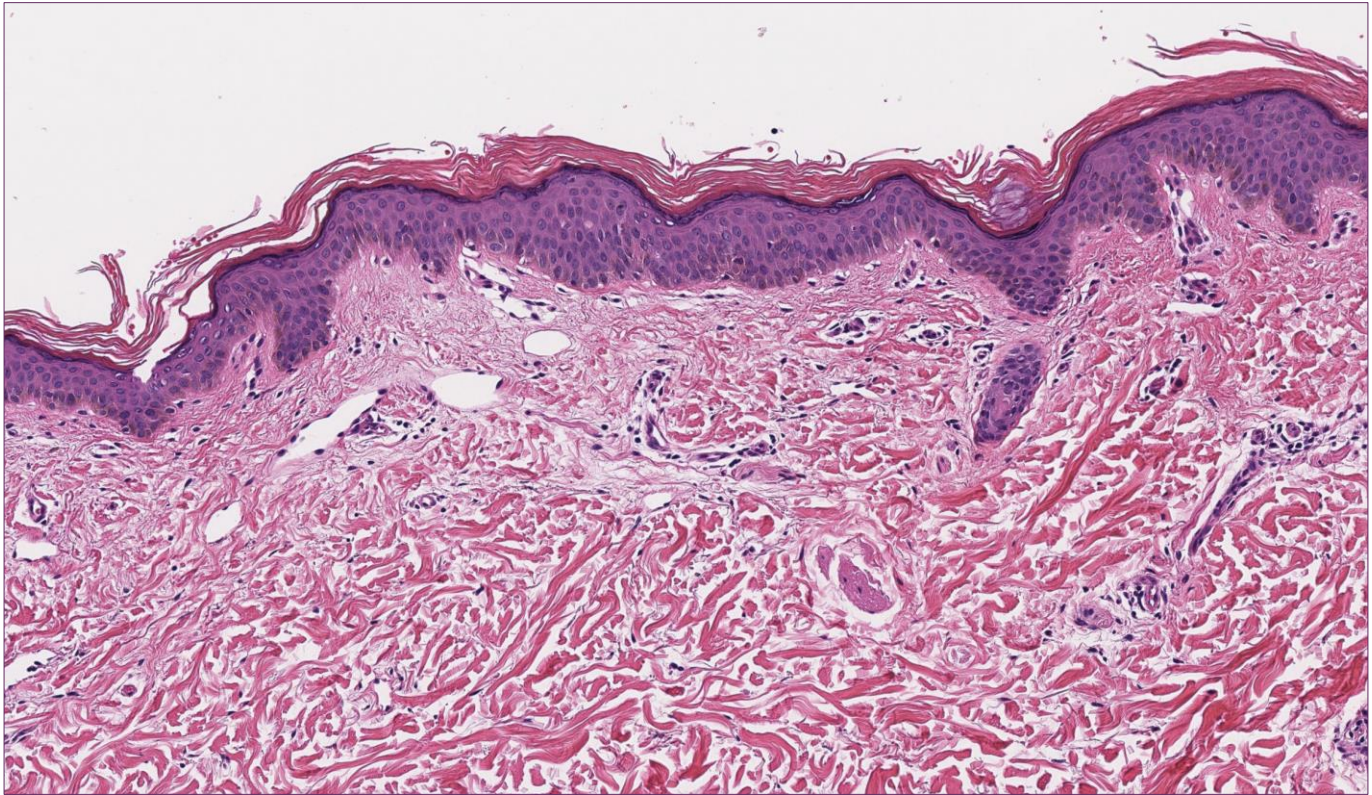


Figure 2. Punch biopsy of a lower back lesion demonstrating mild hyperkeratosis overlying normal stratum corneum (hematoxylin & eosin 10X).

blunting and increased intraepithelial lymphocytes. The patient was diagnosed with CD and began a gluten-free diet. Within the first month of her dietary changes, her dermatitis completely resolved with only mild post-inflammatory pigment alteration remaining.

The incidence of skin disorders among patients with CD is estimated to be 22.6 per 1000 person-years.¹ Dermatitis herpetiformis (DH) is the classic cutaneous manifestation of CD, affecting ~13% of patients with the disease.² DH presents with diffuse, pruritic vesicles and secondary crusting of excoriated lesions. Other dermatologic diseases associated with CD include psoriasis, palmoplantar pustulosis, urticaria, rosacea, atopic dermatitis, and aphthous stomatitis, as well as several others with less supporting evidence.³⁻⁵

The risk of developing skin disorders is highest within the first year of CD diagnosis and may persist beyond 10 years¹; however, patients may experience skin symptoms in the absence of gastrointestinal symptoms. For example, up to one-third of patients with DH exhibit symptoms at the time of CD diagnosis.² While rare, there are reported cases of otherwise asymptomatic CD presenting with palmoplantar pustulosis, aphthous stomatitis, and dermatomyositis that have resolved with gluten-free diet.^{4,5}

While several, well-described cutaneous eruptions have been reported with CD, the prevalence of both preceding chronic dermatoses and asymptomatic, nonspecific eruptions is unknown, particularly among those without gastroenterological symptoms. This may be due to underreporting of such rashes and/or underdiagnosis of CD. Clinicians should consider a broad workup,

including CD screening, for chronic, refractory papulosquamous dermatoses, even in the absence of gastrointestinal symptoms.

Abbreviations used: celiac disease (CD); dermatitis herpetiformis (DH)

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