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Association of Hidradenitis Suppurativa and Ulcerative Colitis in a 14-Year-Old Patient

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ABSTRACT

Hidradenitis suppurativa (HS) is a chronic, inflammatory, recurrent disease of the hair follicle and the lesions are most commonly located in axillary, inframammary, inguinal and anogenital regions. HS is associated with several comorbidities including psychiatric disorders, diabetes, metabolic syndrome, spondyloarthropathies and inflammatory bowel diseases (IBD). In recent literature the association of HS with IBD has emerged as a new research area. Common genetic susceptibility loci, certain cytokine abnormalities and altered microbiota of skin and gut are the factors which have been suggested to play role in both HS and IBD. However, less data is available on HS in pediatric patients and associated IBDs compared to adult population. Here we present an association of HS and ulcerative colitis in a 14-year-old patient to emphasize the importance of regular assessment of gastrointestinal symptoms in children with HS as the evidence to date supports a link between HS and IBD.

Keywords: Hidradenitis suppurativa, Ulcerative colitis, Pediatrics

Introduction

Hidradenitis suppurativa (HS) is a chronic, inflammatory, recurrent disease of the hair follicle and the lesions are most commonly located in axillary, inframammary, inguinal and anogenital regions [1]. The disease typically begins after puberty, most commonly between 20-24 years of age, and the onset before 13 years of age is rare [2,3]. The association of HS with the chronic, inflammatory, relapsing diseases of the intestinal tract, inflammatory bowel diseases (IBD), is emerging as a new research area and recent literature indicates the shared genetic susceptibility and immunologic features [4,5]. Less data is available on HS in pediatric patients and associated IBDs compared to adult population. Herein, we report an association of HS and ulcerative colitis (UC) in a pediatric patient.

Case Report

A 14-year-old female patient applied to our outpatient clinic with complaints of recurrent painful nodules and abscesses in the axillary region for more than a year. She reported that she had similar lesions on the umbilical area three months ago which were diagnosed as omphalitis and she had received multiple antibiotic regimens for her condition. Her medical history revealed that she was diagnosed with UC four months ago. Since then, she has been treated with azathioprine 100 mg/day, mesalazine 4 gr/day and prednisolone 10 mg/day for UC and she was in remission.

On dermatological examination, she had erythematous nodules and sinuses with minimal discharge in the axillary region (Figure 1). Based on her medical history and clinical examination she was diagnosed with HS and started with topical clindamycin. On the

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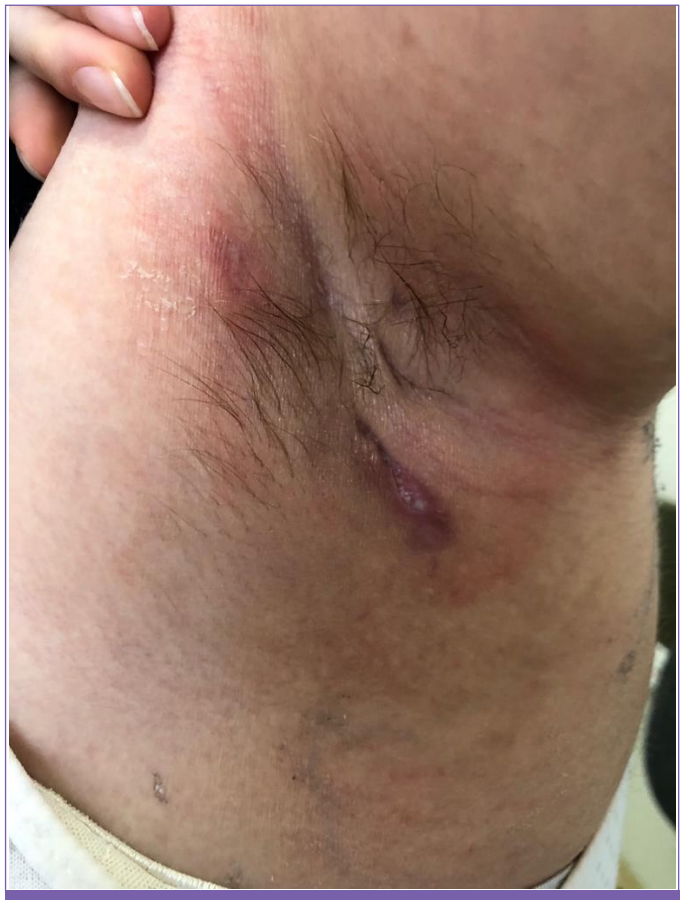

Figure 1. Axillary region with erythematous nodules and sinuses with minimal discharge

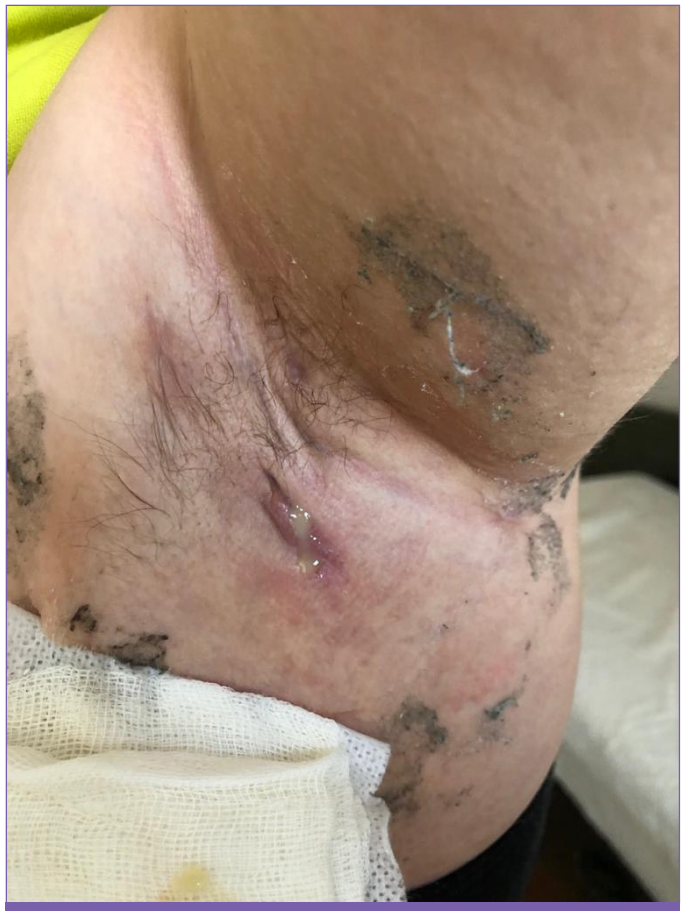

Figure 2. Prominent purulent discharge in axillary region

follow-up examination, as she had an increase in the purulent discharge (Figure 2), oral doxycycline 100 mg/day was added to her treatment.

The delay of diagnosis for HS was 1.5 year for our patient and according to her medical records, the skin lesions started approximately one year before the gastrointestinal symptoms, which then led to the diagnosis of UC.

Discussion

HS is a burdensome disease with several associated comorbidities including psychiatric disorders, diabetes, metabolic syndrome, spondyloarthropathies and IBD [6]. Lately, the link between HS and IBDs has been attributed to similar pathogenic mechanisms as both diseases are known to be chronic inflammatory diseases [4]. Common genetic susceptibility loci involving *SULT1B1* and *SULT1E1* [7], cytokine abnormalities such as increased levels of tumor necrosis factor, interleukin 1 (IL-1), IL-6, IL-17, IL-23 [8-10] and altered microbiota of skin and gut [5] are the factors which have been suggested to play role in both HS and IBD.

A recent systematic review and meta-analysis by Chen and Chi [4] showed that in patients with HS, there is a 2.12-fold increased risk for Crohn's disease (CD) and 1.51- fold increased risk for UC. Most of the studies in the literature which have shown this association included adult patients and there is less evidence available in pediatric age group. A study with 153 pediatric HS patients also demonstrated that IBDs were significantly more common than control group and affecting 3.3% of the patients [6]. In a retrospective study including 109 patients ≤18 years old diagnosed with HS demonstrated that six patients (6/109, 5.5%) had concomitant IBD, one patient classified as CD and five patients as UC [11]. Similarly, in a pediatric CD cohort with 380 patients, seven patients diagnosed with HS [12]. The peak incidence of IBD is in second to fourth decade of life [13] and the earlier onset of IBD is known to be associated with more severe disease and relatively increased risk of intestinal cancer, therefore early diagnosis is of paramount importance [14].

As the younger patients may be more prone to the risk of accumulation of comorbidities [6], children with HS should be evaluated with appropriate screening tools for associated comorbidities including IBDs. In this report, we presented a 14-year-old adolescent female with HS and UC to emphasize the importance of regular assessment of gastrointestinal symptoms including abdominal pain, chronic diarrhea and bloody stool in patients

with HS. The collaboration with gastroenterologists in symptomatic patients is an essential part of the multidisciplinary approach as the evidence to date supports an association between HS and IBD.

Ethics

Informed Consent: Consent form was filled out by all participants.

Peer-review: Externally and internally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: E.A., E.Ad., Concept: E.A., E.Ad., Design: E.A., E.Ad., Data Collection or Processing: E.A., E.Ad., Analysis or Interpretation: E.A., E.Ad., Literature Search: E.A., E.Ad., Writing: E.A., A.Ed.

Conflict of Interest: No conflict of interest was declared by the authors.

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