Linear Immunoglobulin A Bullous Dermatosis of Childhood Mimicking Bullous Tinea Infection

Halen Heussner, OMS-III[1]; Travis Lam, DO[2]; Tracy O Middleton, DO, FACOFP[1]

[1]Arizona College of Osteopathic Medicine, Midwestern University; [2]Desert Valley Dermatology

Introduction

Linear IgA Bullous Dermatosis (LABD) is a rare autoimmune blistering disorder characterized by linear immunoglobulin A (IgA) deposition along the basement membrane zone (BMZ), detected on direct immunofluorescence (DIF)[1]. Chronic bullous dermatosis of childhood (CBDC)–the childhood counterpart to adult LABD–primarily affects children aged 6 months to 10 years, with the peak onset around 4.5 years[2]. CBDC presents as highly pruritic annular clusters of tense vesicles and bullae, often forming a "string-of-pearls" pattern as new blisters form at the periphery of resolving lesions. Commonly involved areas include the lower abdomen, perineum, and genitalia. CBDC is frequently idiopathic, but can also be triggered by infections, medications, vaccinations, UV radiation, or malignancy[3-5]. It is often misdiagnosed as bullous impetigo, particularly when it presents atypically. The first-line treatment is dapsone. Sulphapyridine or colchicine are reasonable alternatives when dapsone is contraindicated. Corticosteroids are reserved for severe cases. Supportive care includes antihistamines for pruritis and proper wound management. CBDC has a good prognosis and usually resolves by puberty[6].

Case Report

A previously healthy 13-year-old boy presented to the dermatology clinic for 2 weeks of severely pruritic, red annular plaques with peripheral vesicles affecting the chest, abdomen, back, and periorbital and cheek regions. He had no significant medical history and had not been exposed to new medications, infections, or vaccinations recently. Treatment was started with oral terbinafine for bullous tinea and oral doxycycline for bullous impetigo, but there was no improvement after 1 week. Notably, the patient reported that the severe itching, particularly on his trunk and face, was starting to affect his school performance.

Presentation

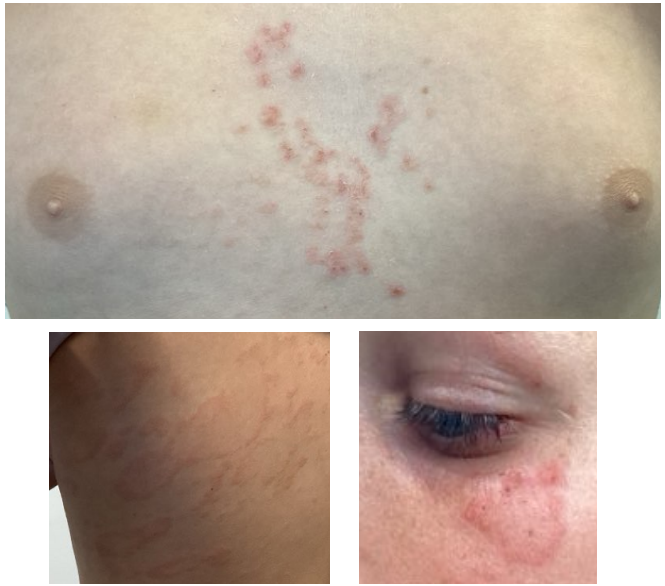

Figure 1. Chronic bullous dermatosis of childhood of the chest, back, and face; initial presentation.

Diagnosis & Management

A punch biopsy taken from perilesional skin on the back revealed subepidermal blisters and a neutrophilic infiltrate, suggesting either dermatitis herpetiformis (DH) or CBDC. A second punch biopsy was obtained for DIF. Blood tests including CBC, G6PD activity, and tTG IgA were all normal. While awaiting DIF results, the patient was started on a prednisone taper (20 mg daily, reducing to 10 mg daily), but there was no improvement. DIF results confirmed linear IgA deposition along the BMZ, diagnosing CBDC. Dapsone was initiated at 50 mg daily, with weekly bloodwork for monitoring.

Outcomes/Conclusion

The patient showed clinical improvement within 2 weeks of starting dapsone, with near complete resolution by 4 weeks. This case shows that CBDC can present atypically, both in terms of age and lesion distribution. Thus, clinicians should include CBDC in their differential when evaluating abrupt pruritic rashes. Early recognition, along with histopathology and DIF, is essential for timely diagnosis and initiation of treatment. Osteopathic manipulative treatments that promote lymphatic drainage—such as myofascial release—may have been effective adjunctive interventions[7].

References