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Case Report
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Hydroa Vacciniforme in a Seven-Month-Old Infant: A Case Report

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Abstract

Hydroa vacciniforme is an extremely rare idiopathic, acquired, recurrent, and debilitating childhood photodermatosis. It is characterized by itching, stinging, and symmetrically distributed papules in photo-exposed areas that appear a few hours after sun exposure. Herein, we present the case of a 7-month-old boy who presented with a 4-day history of itchy papulovesicular lesions. These lesions were symmetrically distributed on the face, dorsal aspects of the hands and feet, ears, flank, and dorsolateral aspects of both forearms and legs. The patient had a history of similar lesions 2 months prior to presentation. Treatment included oral prednisolone, levocetirizine, a combination of topical mometasone cream and fusidic acid applied twice daily to the affected areas, and sunblock. The patient demonstrated an excellent response. Our case is unique because of the patient's male sex, young age (the youngest case reported), involvement of the waist area and lower abdomen, numerous lesions, and symmetry.

Introduction

Hydroa vacciniforme (HV) is an extremely rare idiopathic, recurrent, and debilitating childhood photodermatosis, first described by Bazin in 1862. It is characterized by itchy stinging papules that appear symmetrically in photo-exposed areas a few hours after sun exposure, most commonly on the face, ears, hands, and lower limbs [1, 2]. These papules vesiculate to form hydroa (1), and subsequently become umbilicated, encrusted, and heal within 1–6 weeks, leaving a depressed pox-like (vaccinia) scar. This scar gives the condition its name, vacciniforme. Oral involvement, in the form of aphthous ulcers or gingivitis, and ophthalmic involvement, in the form of conjunctivitis, conjunctival hyperemia, corneal erosions or ulcerations, iritis, keratitis, and uveitis, have also been reported [3-6].

The estimated prevalence of HV is 0.34 cases per 100,000 individuals, affecting females more than males [7]. While most cases are sporadic, familial cases have been reported [7]. HV mostly affects young females aged 3–15 years and tends to regress spontaneously during adolescence. However, males are more prone to severe forms of HV [1, 8]. Our case is rare because it involves a young male [7]. Furthermore, there have been no reports of this condition in Yemen.

Case Report

A 7-month-old boy presented to the dermatology clinic with a 4-day history of itchy eruptions, primarily in sun-exposed areas. He had a history of similar lesions 2 months prior to presentation. Cutaneous examination revealed numerous symmetrically distributed papulovesicular lesions on the face, dorsal aspects of the hands and feet, ears, flank, lower back, abdomen, and dorsolateral aspect of both forearms and legs (Figure 1A–D, 2A–D). Some lesions exhibited central umbilication and crusting (Figure 1C, 1D, 2A, 2B, 2D). Our initial differential diagnosis was insect bite reaction (IBR); however, the presence of central umbilication, crust formation, a high number of lesions, and symmetrical distribution (Figure 1C, 2A, 2B, 2D) were inconsistent with IBR. Further close inspection revealed that the lesions exhibited central umbilication (Figure 1D, 2B), and a few were papulovesicles (Figure 1C, 1D), which is atypical for IBR. Although scabies was considered, the lack of a typical family history, typical lesions, and typical distribution, particularly on the palms, soles, and axillae, indicated that scabies was improbable. He was diagnosed with HV based on typical clinical findings, despite the involvement of sun-protected areas such as the abdomen, lower back, and waist, which has not been previously reported (Figure 2A, 2D). Treatment included oral prednisolone (0.5 mg/kg/day), tapered over 2 weeks, oral levocetirizine, and a combination of topical mometasone cream and fusidic acid applied twice daily to the affected areas. Additionally, sunblock was recommended. The patient showed an excellent response evident by almost complete disappearance of the skin lesions, after one week after one week.

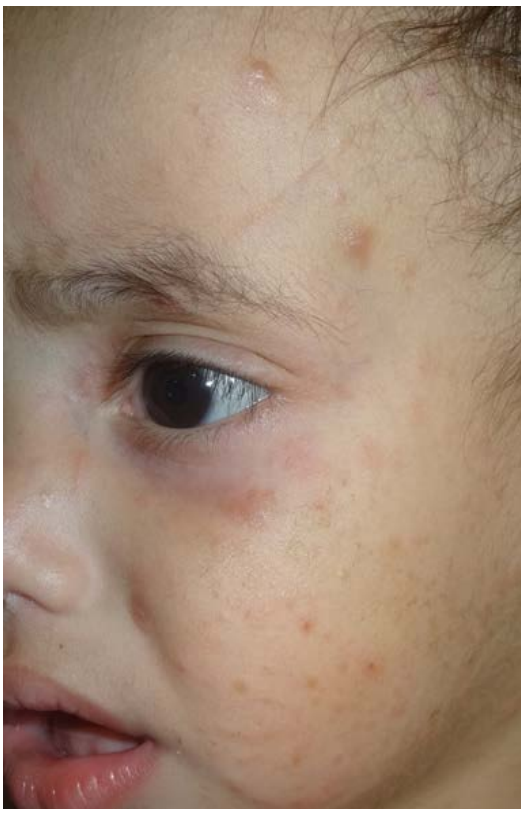

Figure 1A: Hv, Scattered Papulovesicles over the Left Side of the Face

Figure 1B: Hv, Scattered Papulovesicles over the Right Side of the Face.

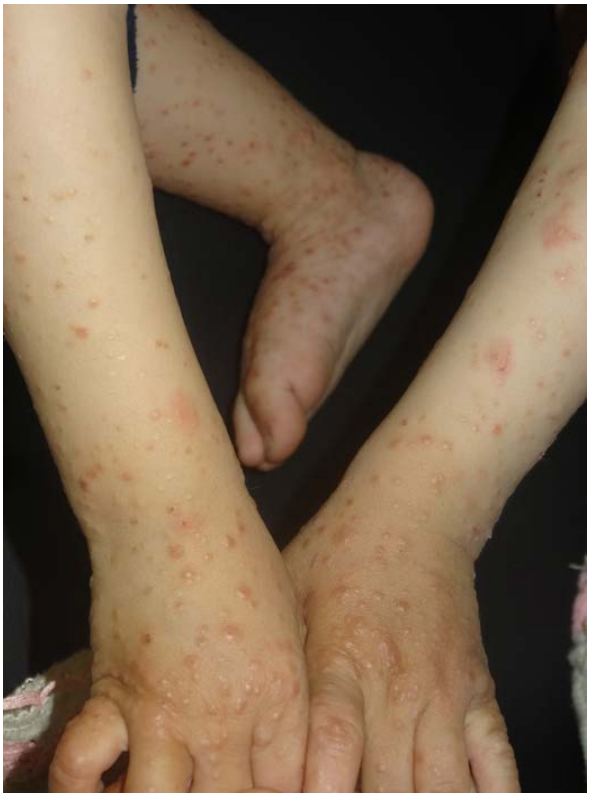

Figure 1c: clustered papulovesicles symmetrically, on distal extremities. Note that Soles Were Free.

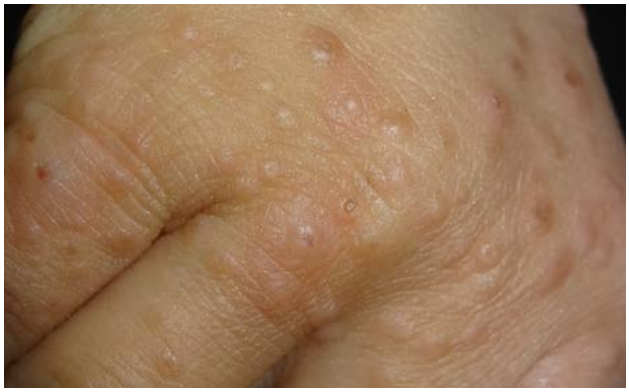

Figure 1D: Close-Up View of the Dorsum of the Right Hand, A Broad Spectrum of Lesions, Papules, Vesicles, Papulovesicles, Umbilication, And Central Crusting.

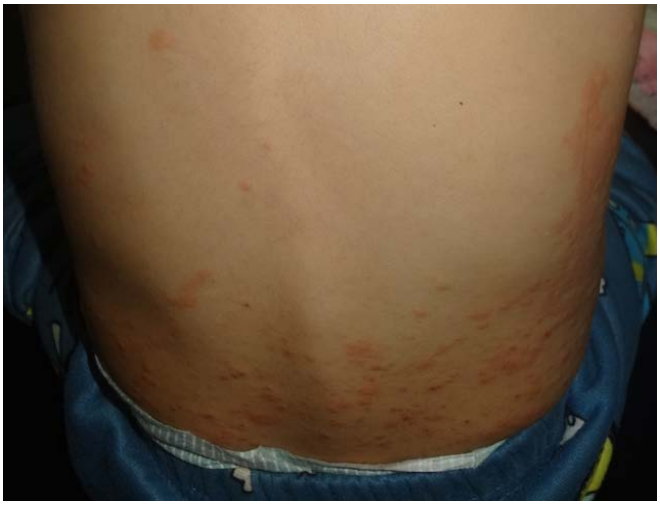

Figure 2A: Involvement of Areas Not Exposed to the Sun, Lower Trunk, And Flanks.

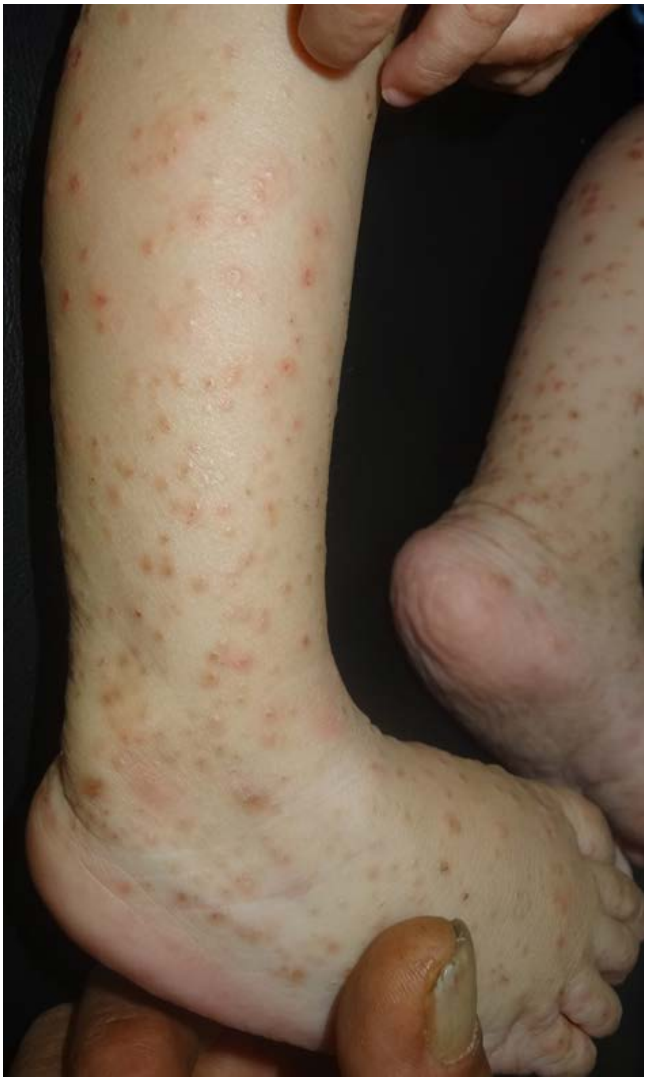

Figure 2B: Close-Up of The Lesions On The Lower Limbs.

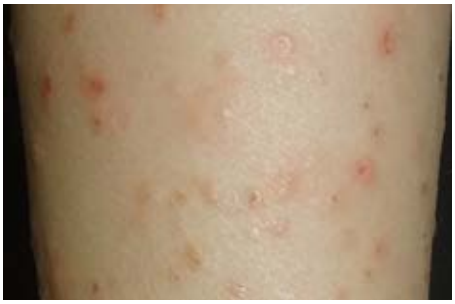

Figure 2C: Close-Up View of Lesions on the Right Leg, With Central Umbilication, and Crusting.

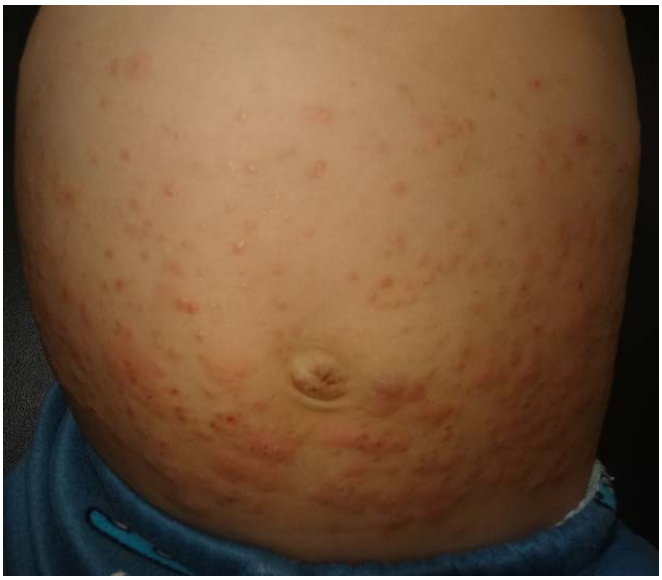

Figure 2D: Myriads of Typical Lesions, Umbilicated Papulovesicles, And Centrally Crusted Papules, Over the Lower Abdomen, Some of Which are Confluent.

Discussion

Although the clinical presentation of HV ranges from mild to severe, its distinctive clinical features, particularly the progression from a papule to a vesicle, followed by crust formation, and eventual varioliform scar formation, allows easy differentiation from similar pediatric dermatoses, such as IBR and scabies. These clinical features also enabled differentiation and diagnosis in our case.

Although oral and ophthalmic involvement have been reported (5-6), these were not observed in our patient.

Our case is unique for three reasons: first, the patient's male sex; second, his young age, making him the youngest reported case; and third, the involvement of the waist region, lower back, and abdomen, which exhibited a large number of symmetrically distributed lesions, areas protected from sun, which are rarely involved. This case report suggests that, when children present with itchy lesions resembling IBR, HV should be considered [9].

Conflict of Interest Statement: The authors declare that they have no conflict of interest.

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