Concise Communication

Urticaria Multiforme Post Pneumococcal Vaccination in an Infant

Sir,

Urticaria multiforme is an uncommon cutaneous hypersensitivity reaction predominantly seen in infants and children, characterized by sudden onset of large, polycyclic, annular wheals with ecchymotic centers, facial, and acral edema. Urticaria multiforme is often misdiagnosed as erythema multiforme because it mimics clinically. Herein, we describe an infant with Urticaria multiforme highlighting its benign self-limiting course.

A 6-month-old infant born to a nonconsanguineous parent was brought to Dermatology OPD services with a complaint of red raised lesions over the body for 2 days. Initially, lesions appeared on the face which rapidly progressed to involve the trunk, upper, and lower limbs. These lesions were used to resolve in a few hours (<24 h) and later they reappeared. There was a fever of 101 °F and it was not associated with chills and rigor. There were no other symptoms like cough, diarrhea, etc. The child received pneumococcal vaccination, 3 days back as a part of routine immunization. Systemic examination was within normal limits. On cutaneous examination, there were multiple annular polycyclic erythematous wheals predominantly over the face, trunk, and lower limbs [Figures 1 and 2]. Few of the lesions showed central dusky hue. Dermatographism was present. Palms and soles were spared. There was no mucosal involvement. Based on the clinical picture and history, the diagnosis of urticaria multiforme was made. The patient was treated with antihistamine i.e., hydroxyzine (0.5 mg/kg every 12 hourly), and all the lesions completely regressed in 3 days. As urticaria multiforme is a rare clinical entity, we report this case to create awareness among clinicians, to highlight the self-limiting and benign course of the disease.

Urticaria multiforme, (acute annular urticaria or acute urticarial hypersensitivity syndrome) a distinct subtype of acute urticaria, is a benign self-limiting cutaneous hypersensitivity reaction predominantly mediated by histamine release and characterized by transient cutaneous erythema and dermal edema. It is more commonly observed in children aged between 4 months to 4 years.[1] The typical lesion starts as small urticular plaques that quickly coalesce into multiple large annular, arcuate polycyclic erythematous wheals with dusky centers commonly involving the face, extremities, and trunk.[1] Pruritus is almost universal and associated with mild fever which usually resolves in 1–3 days.[2] The individual lesions usually resolve within 24 h. The majority of cases are associated with facial and acral angioedema. A viral illness, bacterial infections (upper respiratory infections, otitis media), immunization, antibiotics (amoxicillin and cephalosporins), and antipyretics are commonly implicated triggers.[3] Diagnosis of urticaria multiforme is typically made on history and clinical examination. The usually self-limiting rash persists for 2–10 days and shows a quick favorable response to antihistamines.[4] Systemic corticosteroids are warranted in severe nonresponsive cases.[2]

First described in 1997 by Tamayo-Sanchez et al. as acute annular urticaria,[1] later its name changed to urticaria multiforme in 2007 by Shah et al. due to high similarity clinically with erythema multiforme.[2] Urticaria multiforme is commonly misdiagnosed with other common annular skin disorders like erythema multiforme and serum sickness-like reactions. The typical lesions of erythema multiforme are fixed target lesions with dusky, purpuric center often with necrosis and blistering which

Sree R. Suggu, Venkata C. Konakanchi, Ajay K. Gummalla
Department of Dermatology, Venereology, Leprosy, Andhra Medical College, King George Hospital, Visakhapatnam, Andhra Pradesh, India

Address for correspondence:
Dr. Ajay K. Gummalla,
Department of Dermatology, Venereology, Leprosy,
Andhra Medical College,
King George Hospital,
Visakhapatnam - 530 002,
Andhra Pradesh, India.
E-mail: akgummall@gmail.com

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resolves gradually over weeks with post-inflammatory depigmentation and significant mucus membrane involvement, all of which are not seen in urticaria multiforme. Though serum sickness-like reactions may present with angioedema and polycyclic wheals as seen in urticaria multiforme, this condition can be differentiated by its predominant systemic complaints like high-grade fever, myalgias, arthralgias, lymphadenopathy, and neutropenia.

The classical morphology of the lesions, its fleeting nature, dermatographism, and quick response to antihistamines help to confirm the diagnosis. As urticaria multiforme is an uncommon entity, physicians should be aware of its self-limiting benign course. Finally, the physicians need to counsel, reassure the parents, avoid unnecessary laboratory investigations, skin biopsy, and hospitalization.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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