

Case Report

Urticaria Multiforme: 2 Case Reports and Literature Review

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Received: 12 December 2025

Revised: 16 January 2026

Accepted: 04 February 2026

Published: 20 February 2026

Abstract - Introduction: Urticaria Multiforme is a self-limited, benign dermatological disease, mainly in children (usually between 4 months and 6 years old), that can be and that should be diagnosed in a primary care setting. Case report: Two cases of Urticaria Multiforme, a very specific skin rash, almost pathognomonic, are presented. The general condition of the child is excellent; the lesions can be itchy and may have some flu-like symptoms. Usually, there are no other systemic symptoms. Laboratory tests are not helpful in Urticaria Multiforme diagnosis. Conclusion: General practitioners can accurately diagnose Urticaria Multiforme based on the clinical history and physical examination. This will avoid emergency departments overloading, family stress, and unnecessary tests.

Keywords - Urticaria Multiforme.

1. Introduction

Urticaria Multiforme (UM) is a subtype of acute urticaria, a self-limited benign cutaneous hypersensitivity reaction (type IV), which is a histamine-mediated form of acute annular urticaria¹⁻⁴. It is seen mainly in children (usually between 4 months and 6 years old), who can be and that should be diagnosed in a primary care setting. It is not very commonly published, and it is important to make a clinical diagnosis to avoid aggressive studies on the patient. Its onset is acute, usually within a few days, erythematous, blanchable, annular urticarial plaques on any part of the body¹⁻³.

The sudden and dramatic appearance of these striking skin lesions can produce alarm and anxiety among parents and young doctors. It can also lead to potential confusion with other severe dermatologic diseases. What is paramount in UM is that the patient, usually a child, has a very good general condition, usually asymptomatic, or with mild flu-like symptoms or pruritus¹⁻⁶.

UM is a benign and self-limiting disease, resolving spontaneously within a few weeks, even with no treatment. UM is a poorly recognized condition, as there are not too many reports published. UM was first described in 1997 by Tamayo-Sánchez et al.^{4,7}. In 2007, Shah et al⁴ proposed the term UM due to the similarity to erythema multiforme.

In this paper, the authors report two cases of UM attended in a health centre during the last winter, raising awareness of this disease, which can be diagnosed in an ambulatory setting.

They emphasize the importance of the rapid recognition of UM when evaluating children with hive-like lesions. Frequently, UM is misdiagnosed, leading to unnecessary laboratory evaluation and even hospitalization.

2. Case Reports

Two cases of UM attended in winter 2025-26 are presented.

The first patient was a 5-year-old boy with no relevant past medical history. He had an updated immunization about three weeks ago (diphtheria- tetanus- polio- whooping cough, and the measles-mumps-rubella vaccines). He attended with a history of two weeks of suggestive viral upper respiratory symptoms. One day ago, he started with an itchy skin rash on his torso and limbs.

On examination (Figures 1 and 2), we can see annular urticarial plaques on the whole body. He was treated with Levocetirizine 2.5 ml = 1.25 mg BD, PRN. Red flags were explained to mum to come in if any new symptoms appear. The lesions were not visible after nineteen days.





Fig. 1

Fig. 2

Erythematous Skin Lesions, Blanchable, Annular, Polycyclic Plaques

The second patient was a previously healthy 1-year-old boy with no relevant past medical history. He had a respiratory infection about five weeks ago, treated with Paracetamol and Amoxicillin for seven days, and improved. Ten days before attending, he had his 1-year-old immunisations in place (i.e., the measles-mumps-rubella, the Meningococcal B vaccine, and the Chickenpox/Varicella vaccine). He attended our GP office with granny with a sudden onset of a raised urticarial rash, non-pitting oedema, non-itchy, of 24 hours evolution, in the whole body but mainly in the face and limbs (Figures 3 and 4). The rash disappeared with digital pressure. He always had a good overall condition, with no other signs or symptoms. No fever, eating, drinking, and playing as usual. On general examination, nothing abnormal was detected, only a fungal nappy rash. Topic Clotrimazole cream was started in the nappy area, and moisturizing cream was applied to the rest of the body. Red flags were explained to Granny to come back if any new symptoms appear. The lesions were not visible in about nine days.



Fig. 3

Fig. 4

Similar Skin Lesions to case 1, But Mainly on the Face and Limbs

In both case reports detailed above, the first diagnosis is UM. The three main differential diagnoses of UM could be: erythema multiforme, acute haemorrhagic oedema, and urticaria vasculitis.

3. Discussion

The aetiology of UM is unknown, but it has been linked with non-specific respiratory infections. Different agents had been reported (adenovirus, mycoplasma, Epstein-Barr virus, Streptococcus...)

Other authors have pointed out a possible association with antibiotics (Furazolidone, Amoxicillin, Nitrofurantoin), aspirin, or immunisations⁶. Interestingly, our two cases had a previous immunisation 20 and 10 days before the UM skin rash.

The second patient had a respiratory infection, and he was treated with Amoxicillin five weeks ago, finishing the treatment four weeks ago: we believe reasonably that the onset of UM should not be related to the respiratory infection nor to Amoxicillin.

UM is more frequent in children between four months and four years of age. It starts with small urticarial macules, papules, and plaques, expanding in a centrifugal manner to polycyclic and annular blanchable wheals^{2,3}. Facial and acral oedema are frequent. These children have an excellent general condition, with no systemic signs or symptoms. Some of them may have low-grade, short-term fever^{1,2}. Mild oedema can also be present, but never airway angioedema^{1,6}. Dermographism and pruritus are common features.

Laboratory tests are not helpful in diagnosing UM^{1-3,6}; they are not needed for UM diagnosis. Bloods will show unspecific elevation of ESR and/or CRP. Haemogram and biochemistry will be normal. Skin biopsies are unnecessary, but when done, they show the same as other acute urticarias (dermal oedema with a perivascular lymphocytic infiltrate²).

UM is a clinical diagnosis that does not require laboratory tests or a skin biopsy. General practitioners can accurately diagnose UM based on the clinical history and physical examination. This will avoid emergency departments overloading and family stress^{1-3,6}.

Several diseases may mimic UM, like erythema multiforme (there is no pruritus but pain and target lesions) and urticaria vasculitis (the lesions progress to a unique clinical entity in a short time). In Table 1, the main differences among them are summarised.

Other differential diagnoses of UM are the acute urticaria, which courses with severe pruritus, but no fever. Table 2 Shows The Main Differences Between Them.

Table 1. Main Characteristics and Differential Diagnoses of Urticaria Multiforme, Erythema Multiforme, and Urticaria Vasculitidis.
(Based in Ly-Liu¹ and Emer²)

FEATURES	URTICARIA MULTIFORME	ERYTHEMA MULTIFORME	URTICARIA VASCULITIS
Age	4 months – 6 years	Any age. 50% are ↓ 20	Adults
Appearance of skin lesions	Blanchable, annular, polycyclic, erythematous wheals with ecchymotic centres Classic “target” lesion	Classic “target” lesion with a purpuric centre that may blister.	Hives with purpuric centres
Main locations	Torso, limbs, Face	Hands, forearms, elbows, feet, knees, face, penis, vulva	Torso, limbs, face, and lateral aspects of hands and feet
Lesion duration	Days	Days to weeks	Days to weeks
Fixed lesions	No	Yes	Yes
Total rash duration	2-12 days	2-3 weeks	1-6 weeks
Mucous membrane involvement	Frequent oral oedema. No erosions. No blisters	Erosions, occasionally ulcerations, lips, nasal, conjunctival, vulvar, anal	Oral erosions, blistering in the oral mucosa and tongue. lips, nasal, conjunctival, urogenital
Facial or acral oedema	Common	Rare	Common
Dermatographism	Yes	No	No
Fever	Occasionally (low)	Occasionally (low)	Variable
Arthralgias	No	No	Yes
Common triggers	Viral illness, antibiotics, aspirin, immunizations	Herpes simplex virus, other viral illnesses	Infections, autoimmunity, neoplasms, drugs
Associated symptoms	Mild pruritus	Mild pruritus or burning	Variable
Laboratory findings	CBC, ESR, CRP, throat swab: normal/negative	ESR, WBC, and LFT can be ↑	↑ESR, ↓blood complement, proteinuria, microhaematuria
Treatment	Withdraw suspicious medications Oral antihistamines Oral corticosteroids (only if no response to previous measures)	Systemic corticosteroids were quickly tapered. To prevent recurrent episodes, control of herpes simplex with proper oral antivirals is necessary.	H1 + H2 antihistamines plus non-steroidal anti-inflammatory drugs

Table 2. Main Characteristics and Differential Diagnoses of Acute Urticaria and Urticaria Multiforme.
(Based on Tamayo-Sanchez⁷)

FEATURES	ACUTE URTICARIA	URTICARIA MULTIFORME
Primary age group	All ages	Infants and small children (4 months – 4 years)
Aetiology	Food, drugs, infections, idiopathic	Infections (viral), vaccines, drugs, idiopathic
Pathogenesis	Ig E-mediated (type I) or non-IgE-mediated.	Hypersensitivity reaction type IV
Pruritus	Severe	Mild or absent
Fever	Absent	Mild or absent
Dermatographism	Occasional	Common
Type of lesions	Small to large wheals	Large annular polycyclic plaques, concentric
Extent of lesions	Limited or extensive	Extensive
Airway angioedema	Maybe present	Always absent
Time for spontaneous resolution	2 to 6 weeks	1 to 2 weeks

4. Treatment and Evolution

UM generally has a self-limited course. The treatment of UM is symptomatic^{1,3}, as there is spontaneous resolution. If the lesions are itchy, the treatment of choice is oral antihistamines for relief from pruritus and excoriation prevention. In refractory and/or severe cases, we can add systemic corticosteroids to oral antihistamines¹⁻³. Nonetheless, neither of them prevents the skin lesions. Any suspected or unnecessary medications should be withdrawn.

Total resolution of the disease usually occurs within two weeks. Our first patient was treated only with oral antihistamines, as he had itchy lesions. Our second patient did not need antihistamines, as they had non-itchy lesions. After two weeks from the beginning of the skin lesions, most of them were imperceptible.

5. Conclusion

UM is a self-limited benign dermatologic disease, mainly in children (usually between 4 months and 6 years old).

General practitioners can accurately diagnose UM based on the clinical history and physical examination, without requiring laboratory tests or biopsies.

The treatment of UM is symptomatic. The treatment of an election is oral antihistamines for relief from pruritus. In refractory cases, systemic corticosteroids can be added.

Total resolution of the disease usually occurs within two weeks.

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