We present two cases of young children with rashes on their trunk and extremities, both of whom were seen at the pediatric ward of our local hospital.

**CASE PRESENTATIONS**

**Case 1**

A 23-month-old child presented to the pediatric ward with a rash on the trunk and extremities (Figure 1).

There was a remarkable acral angioedema (Figure 2) with the consequence that the child was not able to stand or walk. Skin symptoms such as annular wheals with central palsy were observed.

The patient had gastrointestinal symptoms and diarrhea, and a short period of fever (38.5°C rectally) the week before hospital presentation. Blood samples showed no leukocytosis, but did show mildly elevated C-reactive protein (CRP) levels at 32 mg/L (normal range <8 mg/L).

**Case 2**

A 12-month-old child was referred by the local general practitioner to the pediatric ward with a rash. Five days before presentation to the pediatric ward, the child was given antibiotic treatment (amoxicillin) for otitis media. The treatment was discontinued because of appearance of elevated itchy, annular wheals and fever (38.8°C rectally).

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Diagnosis:

Urticaria Multiforme

In Case 1, urticaria multiforme was believed to be the cause of the rash, and treatment with the antihistamine desloratadine was started. After 3 days of treatment, the wheals were faded and after an additional 2 days the symptoms were gone.

In Case 2, urticaria multiforme was also believed to be the course of the rash, and treatment with desloratadine was started. As in Case 1, no leukocytosis was detected and CRP level was elevated (44 mg/L). After 3 days of treatment, the symptoms disappeared. Approximately 1 month later, specific immunoglobulin E-mediated allergic responses to penicillin G, V, amoxicillin, and ampicillin were found to be negative (<.35 kU/L). A drug provocation test with amoxicillin did not establish penicillin allergy.

DISCUSSION

Urticaria is a common condition characterized by pruritic, erythematous, and elevated wheals. Acute urticaria lasts up to 6 weeks, and chronic urticaria is defined by a duration of longer than 6 weeks. Annular urticaria, also called urticaria multiforme, is a morphologic subtype of acute urticaria, which commonly appears in childhood and is often confused with erythema multiforme. Urticaria, however, is a self-limiting symptom that responds well to treatment with antihistamines.

The term “acute annular urticaria” was first introduced in 1997; and the term “urticaria multiforme” was introduced in 2007. Both terms describe this special form of urticaria that is characterized by the acute onset of annular wheals with a pale or ecchymotic center. Infections are the main cause of the symptoms (as seen in the two cases presented here), but sometimes they are triggered by antibiotics or food allergies. Mycoplasma, Streptococcus, adenovirus, and rotavirus are the typical agents of the infectious course.

The symptoms are self-limiting, and with the correct therapy they are short-lived. In children with urticaria multiforme, the coexistence of wheals and angioedema is typical. It is a clinical diagnosis, so a skin biopsy is not needed. Treatment is with antihistamines, sometimes combined with mild, topically applied corticosteroid ointments.

Urticaria multiforme is more common in children than erythema multiforme, and there is a difference in symptoms, duration, and morphology. Table 1 shows the important differences between urticaria multiforme and erythema multiforme.

REFERENCES


TABLE 1.

Differences between Urticaria Multiforme and Erythema Multiforme

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Urticaria Multiforme</th>
<th>Erythema Multiforme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphology</td>
<td>Annular wheals with central pallor or ecchymosis</td>
<td>Erythematous papules, target lesions</td>
</tr>
<tr>
<td></td>
<td>Duration of wheals &lt;24 hours</td>
<td>Eventually central necrosis or vesicles</td>
</tr>
<tr>
<td></td>
<td>Often angioedema on face and extremities</td>
<td>Duration &gt;7 days</td>
</tr>
<tr>
<td>Location</td>
<td>Universal</td>
<td>Palms and soles</td>
</tr>
<tr>
<td>Urticarial dermographism</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Mucosal involvement</td>
<td>No, eventually mild edema</td>
<td>Eventually erosions</td>
</tr>
<tr>
<td>Symptoms</td>
<td>Pruritus</td>
<td>Burning, mild pruritus</td>
</tr>
<tr>
<td>Triggers</td>
<td>Infections, medicine, foods</td>
<td>Infections, herpes</td>
</tr>
<tr>
<td>Treatment</td>
<td>Antihistamines</td>
<td>Topical steroid ointments, systemic steroids with spread lesions</td>
</tr>
</tbody>
</table>

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