

The management of urticaria

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Is steroid treatment effective in acute urticaria?

Acute urticaria is a common issue in the primary and emergency care settings. The mainstay of its treatment are second-generation antihistamines (nonsedating H₁-receptor blockers) and elimination of identified triggers (eg, particular food items or drugs). There are few studies examining the effectiveness of adding steroids to nonsedating H₁ blockers in comparison with antihistamine monotherapy. The 2022 guidelines for the diagnosis and management of urticaria¹ suggest considering a short cycle of oral steroids (up to 10 days; eg, prednisone 20–50 mg/day in adults and 0.5–1 mg/kg/day in children) in the case of a lack of response to antihistamine treatment in acute urticaria or exacerbation of chronic urticaria in order to shorten the disease course and/or lower its activity. The therapeutic effect is explained by a steroid-induced decrease in the number of mast cells; however, it should be highlighted that steroids do not inhibit mast cell degranulation. However, the clinical effectiveness of steroids in the management of acute urticaria appears to be controversial. Recent randomized control trials did not show any benefits of a combination therapy with a steroid and a nonsedating H₁ blocker, as compared with nonsedating H₁ blocker monotherapy. Furthermore, the combination treatment exacerbated the course of urticaria.^{2,3} It is worth emphasizing that even short cycles of steroids can prolong the duration of urticaria, cause antihistamine resistance, and increase the risk of serious adverse events, such as sepsis, venous thromboembolism, and fractures.

In conclusion, in most cases, the course of acute urticaria is mild and self-limited (especially in children), and often associated with an infection (viral, parasitic, or bacterial [*Mycoplasma pneumoniae*]). Nonsedating H₁ blockers are the safest and most effective option in the management of acute urticaria. [Question answered by UJ-W]

Can steroids, antihistamines, or calcineurin inhibitors be used topically in the management of urticaria?

Currently, there are no publications on topical management of urticaria with those medicines. Systematically used nonsedating H₁ blockers are the first-line treatment in urticaria (acute or chronic). Topical use of antihistamines (ointments, gels) is ineffective and can increase the risk for allergic contact dermatitis or skin irritation.

Some studies from the 1990s mention short-term use of topical steroids as an adjuvant therapy in the management of chronic urticaria. The current 2022 guidelines on the management of urticaria¹ do not include recommendations on the use of topical steroids, except in the cases of pressure urticaria located on the soles (recommendations based on low-quality evidence). Furthermore, topical steroids (low- or medium-strength ointments or creams) can be used in the management of large local reactions (wheals, erythema, swelling), especially those caused by Hymenoptera stings.⁴ They are also effective in the management of local reactions to mosquito bites, and effectively reduce itching, swelling, and erythema when used in the form of a cream (eg, hydrocortisone 1%), up to 4 times daily for 1 to 2 days.

There are no recommendations, label or off-label, for the use of topical calcineurin inhibitors in the management of urticaria.

The recommendations for reducing itching in acute generalized urticaria (which is possibly the intended meaning of the question) include a cooling bath/shower followed by application of a soothing balm/lotion with cooling agents (eg, menthol 0.5%–2%) to the skin. [Question answered by UJ-W]

At what point in the course of urticaria pigmentosa is it necessary to begin treatment?

No consensus exists over the management of urticaria pigmentosa in children. Most therapeutic recommendations are based on expert opinions.^{5–9}

In the majority of patients, urticaria pigmentosa resolves spontaneously in adolescence and does

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Published online:

December 21, 2023.

Pol Arch Intern Med. 2023;

133 (12): 16633

doi:10.20452/pamw.16633

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not require intensive treatment. In most cases of maculopapular cutaneous mastocytosis, the most common form of urticaria pigmentosa, treatment is not necessary, and its implementation (chronic or acute) depends on patient symptoms.

The treatment of choice are antihistamines (most often second-generation nonsedating H₁ blockers, less often first-generation antihistamines, mostly because of their antipruritic properties). Similarly to chronic urticaria, the dose of nonsedating H₁ blockers can be increased up to 4 times, if needed. In Poland, according to the summary of product characteristics, dimetindene maleate can be used in children aged 1 month and older; desloratadine and hydroxyzine in children aged 1 year and older; cetirizine, rupatadine, loratadine, and levocetirizine in children aged 2 years and older; and fexofenadine and bilastine in children aged 12 years and older.

In the case of severe, mediator-dependent skin symptoms (itching, flushing, swelling, blistering) persisting even after treatment with nonsedating H₁ blockers, the recommended course of action involves the use of H₂-receptor antagonists, anti-leukotriene drugs, and, in selected cases, phototherapy (mostly narrow-band ultraviolet B therapy, less often ultraviolet A1 therapy or photochemotherapy) or omalizumab.

H₂-receptor antagonists, proton pump inhibitors, sodium cromoglycate, and oral steroids are used in the treatment of gastrointestinal tract symptoms (abdominal pain, diarrhea, nausea, vomiting) associated with mast cell mediator use.

Severe systemic symptoms are not typical of maculopapular cutaneous mastocytosis; therefore, if they occur, it is necessary to conduct diagnostic tests for other types of mastocytosis.

The risk of anaphylactic reaction in children with urticaria pigmentosa is much lower than in adult patients, and is most often associated with extensive skin involvement and elevated serum tryptase levels. In most children with urticaria pigmentosa it is not possible to determine the trigger for anaphylaxis.

The patients and their guardians need to be provided (preferably in writing) with detailed information concerning possible triggers, and be instructed to avoid these triggers to the best of their ability. They should also be taught anaphylactic shock first aid. Because of the potential risk of anaphylaxis, patients with urticaria pigmentosa should be prescribed the anaphylaxis emergency kit (2 prefilled adrenaline syringes, antihistamine [triple dose recommended], and prednisone at a dose of 1 mg/kg) and be instructed on when to use it (ie, exacerbation of skin lesions, histamine-induced symptoms [itchiness, general skin redness, wheezing, diarrhea], or exposure to known symptom-exacerbating factors).

Topical steroids can be used as needed in patients with exacerbated urticarial lesions or extensive skin swelling to accelerate symptom resolution and reduce itchiness. If a child develops a severe reaction to an insect bite, consultation

with an allergist and evaluation for specific immunotherapy are mandatory. [Question answered by KAK]

ARTICLE INFORMATION

NOTE Translated from Jedynak-Wąsowicz U, Kisiel KA. Questions concerning the management of urticaria – part 1 [in Polish]. *Lekarz Rodzinny*. 2023; 3: 87-92.

CONFLICT OF INTEREST None declared.

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HOW TO CITE Jedynak-Wąsowicz U, Kisiel KA. The management of urticaria. *Pol Arch Intern Med*. 2023; 133: 16633. doi:10.20452/pamw.16633

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