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Diagnostics and treatment of chronic urticaria in the family doctor's office

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Abstract

Urticaria is classified as a sever, chronic, allergic disease with a phase of remission and exacerbation. The basic dermatitis is wheal. The classification of urticaria is based on the causing factor and the duration of symptoms. The UAS-7 score is used to assess the severity of symptoms. It is as a simple tool used by patients and physicians. In the diagnosis of urticaria, the most important element is a meticulous interview which may indicate the cause of the disease but usually it remains unknown. Treatment is based on 1 receptor antagonists usually in high dosage - even 4 time higher than the standard one.

Definition of urticaria

Urticaria, also known as hives, is a disease of skin, which cause is heterogeneous. It’s primary exanthema is wheals, sometimes accompanied by pruritus and/or angioneurotic edema. Though it seems trivial but it can significantly impede the daily functioning of patients and pose a diagnostic challenge which frequently remains without finding a cause.

Classification

Urticaria can be divided into chronic, lasting over 6 weeks and acute one that lasts less than 6 weeks. Due to the cause, the chronic hives is divided into induced /caused by physical factors such as cold, pressure, vibration, sun rays, heat/ and spontaneous one with unknown cause such as autoimmune, infectious or idiopathic. The prevalence of chronic urticaria is estimated at 0.3-1%, whereas acute urticaria may affect up to 45% of the population.

Subtypes of chronic hives

Chronic spontaneous	Chronic induced
Symptoms lasting above 6 weeks cause known or unknown	Symptomatic dermathography Hives caused by cold Hives delayed from pressure Solar hives Hives caused by heat Angioedema associated with vibration Cholinergic hives Contact hives Water hives

Diagnostics

To evaluate the seriousness of the disease, a UAS7 score of symptoms' severity is usually recommended. The scale is based on the amount of wheals appearing in time and the severity of pruritus. It can be used by doctors and patients to help in assessment the disease. The evaluation is recommended to be carried out once a day for several days in a row.

UAS7 score

Score	**Wheals**	**Pruritus**
0	None	None
1	Mild (<20 wheals/24h)	Mild (present but not annoying or troublesome)
2	Moderate (20-50 wheals/24h)	Moderate (troublesome but does not interfere with normal daily activity or sleep)
3	Intense (>50wheals/24h or large confluent areas of wheals)	Intense (severe pruritus, which sufficiently to interfere with normal daily activity or sleep)

In the diagnostic process of chronic urticaria, MD should conduct enlarged, penetrating interview with the patient, with particular emphasis on:

- course of illness
- frequency of relapses
- circumstances in which symptoms appear
- presence or luck of angioneurotic edema
- time point
- shape, size and location of wheals
- presence of pruritus / pain
- family/ personal history of atopy
- use of medicines
- association with food
- type of professional work
- association with the menstrual cycle
- hobbies
- stress (positive or negative)

The basic task in induced urticaria is to determine the stimulus causing the symptoms or performing the test with a suspected factor. Whereas in spontaneous chronic urticaria the standard diagnostic procedure depends on a medical interview. Routine recommended tests include morphology, ESR,

CRP and avoidance of suspected drugs (e.g. NSAIDs). Expanded proceedings based on an interview comprise: infection (e.g. H. pylori, HIV, hepatotropic viruses, parasites), type I sensitization, functional auto antibodies, thyroid hormones and antithyroid antibodies, skin tests, 3-week diet with exclusion of pseudo allergens and intradermal tests with autologous serum. The positive result of any above-mentioned tests leads to determination of the cause of chronic urticaria and to diagnose.

Treatment- general rules

The basic principle of urticaria therapy is based on the desire to fully control symptoms using the safest possible form of therapy. Therapeutic treatment should start with avoiding / eliminating the factor causing symptoms which is often difficult and arduous. It should be kept in mind that the identified factor can only intensify symptoms while the main cause of chronic hives may be various what can hinder therapeutic treatment.

Undoubtedly, an effective treatment method is to avoid factors that cause symptoms or reducing them to a minimum. Sometimes it is recommended to try tolerance test, especially in solar hives, cholinergic hives and hives cause by cold. This procedure is based on exposure to a stimulus below the threshold value.

In case of elimination of infections, it should be remembered that the procedure is not only based on eradication but also to control the chronic inflammatory processes of a different etiology, among others: gastritis, reflux oesophagitis, inflammation of the bile ducts and gall bladder.

The procedure recommended in urticaria with the accompanying hypersensitivity to pseudo allergens is based on eliminating potentially harmful substances from diet and maintaining such therapy for 3-6 months.

Pharmacological treatment

H1 receptor antagonists are of key importance in the treatment of chronic urticaria. It is recommended to choose drugs with the best possible safety profile therefore the first-generation drugs should not be used due to their numerous side effects such as sedation or influence on concentration. In case of older people side effects could be: increased risk of cognitive impairment, speech disorders, awareness disorders or loss of balance causing falls. The drugs best studied in the treatment of urticaria in the antihistamine group include:

- Cetirizine
- Desloratadine
- Fexofenadine
- Levocetirizine

- Loratadine
- Rupatadine
- Bilastyna

If the therapy using standard doses of antihistaminic drugs is not effective, it is possible to increase the dose. There are numerous data showing the safety and efficacy of higher doses. In case of urticaria it is possible to increase the dose of antihistamines 4 times in the treatment of some patients. These medicines include: Bilastin, Cetirizine, Desloratadine, Levocetirizine, Fexofenine, Rupatadine. This therapy is to be maintained for 1-4 weeks to assess the full effectiveness of treatment. The severity of urticaria symptoms is variable and may occur with spontaneous remission, therefore it is recommended to assess every 3 to 6 months whether to continue treatment or to change it. The general rule regarding treatment requires that the lowest effective dose of antihistamines should be maintained.

Drugs used to treat urticaria include also glucocorticosteroids, cyclosporin A, omalizumab (monoclonal IgE antibody) and montelukast. Glucocorticosteroids have been used in the case of failure of H1-blockers as short inserts (up to 10 days) to control the symptoms in doses of 20-50mg / day of prednisolone. However it is not recommended for long-term treatment due to its side effects. Ointments with glucocorticosteroids to be used on wheals, proved to be ineffective in this disease. As a third-line procedure, the introduction of cyclosporine A or the use of montelukast with an antihistamine drug is recommended but it should be introduced only in selected cases refractory to standard treatment because of safety profile of these drugs.
In case of treatment of a special group of patients, i.e. pregnant women and breastfeeding women, despite the lack of tests, the safest drugs for treatment of urticaria appear to be desloratadine and cetirizine.

Summary

Diagnosis and therapy of urticaria usually can be carried out by a family doctor with great success. Only in some cases the consultation of an allergist, dermatologist or other specialist will be required, due to the limited package of examinations necessary in the diagnostic process of urticaria.

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