Cholinergic urticaria: modern approaches to patient management. A literature review

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BACKGROUND. Cholinergic urticaria occupies a significant place in the structure of chronic urticaria. This problem is particularly relevant for young men leading an active lifestyle. For this and other age groups, the presence of cholinergic urticaria poses a serious risk of systemic anaphylactic reactions in cases of professional sports or intensive physical training.

OBJECTIVE. To analyze available data on the etiology, pathogenesis, clinical manifestations, diagnosis, treatment, and prevention of cholinergic urticaria.

MATERIALS AND METHODS. A search for available information sources, analytical processing, and discussion of the obtained results.

RESULTS AND DISCUSSION. The diagnosis of cholinergic urticaria is based on thorough history taking and the use of provocation and laboratory tests. However, the episodic nature of symptoms and the lack of physician awareness about this form of urticaria often lead to prolonged delays in diagnosis and treatment initiation. Without adequate control, cholinergic urticaria significantly impairs quality of life, daily activities, and is associated with substantial costs, while concomitant angioedema and anaphylaxis may pose a life-threatening risk. Differential diagnosis may be challenging between cholinergic urticaria with angioedema, exercise-induced urticaria, and exercise-induced anaphylaxis associated with a food trigger, most commonly wheat allergen ω_5-gliadin. In exercise-induced anaphylaxis, the potential risk lies in the physical activity itself, whereas in cholinergic urticaria, any situation associated with increased sweating – including medical interventions – may provoke a systemic reaction. Treatment of patients with cholinergic urticaria is based on a stepwise approach, depending on disease severity and treatment response. First-line therapy consists of second-generation antihistamines. In the absence of adequate response, further treatment should be individualized, taking into account disease severity, endotype, predictors of therapy response, patient's individual characteristics, comorbidities, and pharmacological properties of recommended medications. Useful agents for the treatment of patients with cholinergic urticaria may include drugs containing belladonna extract and atropine, which act by suppressing acetylcholine activity.

CONCLUSIONS. It is necessary to draw the attention of the medical community to the challenges of diagnosing cholinergic urticaria, the importance of further investigation of its biomarkers, informing patients about the necessity of provocation testing, the use of validated questionnaires in clinical evaluation, as well as formulating recommendations on lifestyle modification for individuals with cholinergic urticaria and on specific aspects of performing medical interventions in such patients. The management of cholinergic urticaria requires further research.

KEY WORDS: cholinergic urticaria, etiology, pathogenesis, classification, clinical manifestations, diagnosis, treatment, prevention.