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CURRENT ASPECTS OF USE OF MEDICATED CHEWING GUM IN STRESS THERAPY AND PROPHYLAXIS

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In general, the problem of stress is ancient, but its scientific realization has only occurred in the last twenty years, which is reflected in the desire to meet the urgent needs of society. As a result, in recent years, there has been an increase in the number of scientific studies on mechanisms of stress conditions development, their effective therapy and prevention [1, p. 255]. Different factors, such as hormones, neuroendocrine mediators, peptides and neurotransmitters, are involved in the body's response to stress. Proved facts are the impact of stress (especially chronic) on the pathogenesis of various diseases of the gastrointestinal tract, including gastroesophageal reflux disease, peptic ulcer, functional dyspepsia, inflammatory bowel disease, irritable bowel syndrome and other gastrointestinal disorders [2, p. 591-599]. The pressing issue is the perception of stress as one of the links in the etiopathogenesis of a large list of diseases. Therefore, there is a need to treat the patient accordingly, using both pharmacological (drugs and / or

nutraceuticals) and non-pharmacological (lifestyle changes, daily exercise, healthy eating, and stress reduction) methods of stress therapy. Important for the treating physician is the fact that all people differ in their response to stress, so a particular treatment or intervention strategy appropriate for one patient may not be appropriate or optimal for another patient [3, p. 1057-1072]. In the International Classification of Diseases 11, stress disorders are classified in group 06 mental, behavioural or neurodevelopmental disorders, subgroup – disorders specifically associated with stress. This group includes the post-traumatic stress disorder, complex post traumatic stress disorder, prolonged grief disorder, adjustment disorder, reactive attachment disorder, other specified disorders specifically associated with stress, disorders specifically associated with stress, unspecified. In addition, manifestations of chronic stress are included in other headings of ICD-11. Therefore, emotional burnout syndrome is coded as QD85 – a burn-out and is not considered a disorder. Taking into account the multifactorial etiology of stress states and the severity of their possible consequences, various European and American clinical recommendations for the treatment of psychiatric and somatic disorders associated with stress indicate the need for a comprehensive approach to their management, including psycho-correction, physical education load, lifestyle modification, etc. [4, p. 85-90].

However, there is currently no gold standard for the treatment and prevention of stress. Among the nomenclature of sedatives in the pharmaceutical market of Ukraine, the most widespread are dosage forms such as tablets, tinctures and capsules. Such a modern dosage form as medicated chewing gum (MCG) is presented only in the form of the drug «Nicorette» as a treatment for nicotine addiction. In the world pharmaceutical market, MCG is used in dental caries, pain, obesity, xerostomia, acidity, allergies, nausea, diabetes, anxiety, dyspepsia, osteoporosis, coughs, colds, and more. Not only chewing gum used for special populations with difficulty in swallowing, such as children and the elderly, but they are also popular with the younger generation. Thus, chewing gum is one of the most optimal drug delivery systems because it is convenient to use and can also be used discretely without taking water [5, p. 35-48].

Recent studies have shown that chewing gum, even without active pharmaceutical ingredients, can reduce the perception of stress in professional life. In one study, 72 students used chewing gum for 2 weeks or abstained from chewing gum. They passed tests measuring perceived stress, anxiety, depression, and one-off fatigue measurements. The tests were compiled both before and after the study. According to the results, the resulting stress decreased depending on the use of chewing gum. A. Smith has published a

review on the effects of chewing gum on reducing stress and depression. Although, chewing gum may not have a direct effect on depressive mood; however, its use may reduce the symptoms resulting from depression. Similar results were obtained by F. Erbay, S. Zibell in other studies on the effect of chewing gum on stressful conditions [6, p. 1037-1040; 7, p. 52; 8, pp. 31-34; 9, p. 1491-1500].

Thus, the development of medicated chewing gum composition and technology for the treatment and prevention of stress conditions will be a promising direction for further work.

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