Conclusions. There is a high prevalence of DGR in patients with the clinical symptoms of a reflux disease. The combined measurement of acid reflux and DGER helps to better define the cause of reflux symptoms. In analogy to the acid reflux DGER increases with the gravity of oesophageal lesions. As the concentration of bile acids in the gastric juice increased, the course of GERD worsened. The intensity of nitrosative stress in patients increased with an increase in the intensity of the inflammatory process in the mucous membrane of the esophagus in patients with gastroesophageal reflux disease with reflux esophagitis.

SHORT-TERM INTENSIVE FASTING IN ACTIVATION OF IMMUNE SYSTEM

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Relevance. Hippocrates, recommended abstinence from food, fasting for medical purposes during sickness. In fact a loss of appetite and fasting in certain disease states being recognized as the body's natural instinct to aid healing. It's seen as an important natural part of the recovery process, therefore is effective to listen to the fasting instinct (the natural loss of appetite during disease). Infectious diseases are disorders caused by organisms - such as bacteria, viruses, fungi, parasites and these diseases are a leading cause of morbidity and mortality worldwide and are a major challenge for the clinical and biomedical sciences.

Pathological diseases (cancer, heart disease, chronic respiratory diseases, obesity, diabetes, infectious disease etc.) encompass a wide range of conditions affecting various organs and systems in the body, but treatment approaches often depend on the specific disease and its underlying causes and ages. Indeed, it is not known how to elicit protective immunity against most pathogens in a safe and practical manner. The knowledge and reinforcing of immune system is a ways to strengthen and induce your body to clean out some old immune cells and switch on production of new ones.

An effective therapy to innate immune remodeling and correlate with biofunctional process of cells is short-term intensive fasting (intermittent fasting, one - two times per week 8-16-24 hours, short-term 72h of water-only fasting, and prolonged fasting) according to disease dynamics. Also can considerate about time-restricted eating that is a popular dietary strategy that emphasizes the timing of meals in alignment with diurnal circadian rhythms, permitting ad libitum energy intake during a restricted (~8-10h) eating window each day or occasionally. However, how the immune system responds to the increased risk of degradations and invasion by infectious pathogens with fewer leukocytes in the peripheral blood during fasting intervention remains an open question. Also there is a need for further research that can expand the knowledge base on the fasting as therapeutic, and prophylactic health potential in prolongation of disease-free life.

Aim. To integrate additional effective currative and prophylactic metods as addions treatment of different diseases in activation of immune system. To include interaction between natural therapy and daily life that are directly related to human life, such as food & - fasting; *air, water, sunlight - health; work, gymnastics, sleep, rest -immune sys.;* as main factors to maintain and restore health.

Materials and methods. Although short-term intensive fasting fosters the immune function of red blood cells and therefore, it may be considered as a nonmedical intervention option for the stronger capacity of red blood cells to combat infectious diseases, it is effective in complex therapy.

More ongoing clinical trials are using fasting as a potential therapy, either alone or in combination with current front-line treatments, for various health conditions. The main study was

conducted in China, also addittionaly in USA, Europe and Ukr. On the basis of diseases as cancer, obesity, peripheral vascular disease and neuropathy, trophic ulcers and wounds. The effects of fasting on open wounds diabetic and burn wound healing were evaluated by analyzing the rates of wound closure, re-epithelialization, scar formation, collagen deposition, skin cell proliferation and neovascularization using histological analyses. Functional assays were conducted to assess fasting and refeeding on the angiogenic activities of endothelial cells. Has been used comparative biochemical methods and clinical tools to evaluate the impact of different types of fasting according disease.

Results and conclusions. The direct effects of different methods on the innate immune system have been reviewed also earlier. Different medicine systems, as Tibetan, traditional Chinese, Ayurveda, Kampo, Korean, Unani etc., which have evolved into meticulously regulated systems, demonstrate the importance of natural products, traditional medicines and correlation with fasting. The use of these methods and including of nutraceuticals, phytonutrients, herbal remedies is expanding quickly throughout the world as more people turn to these items and programs to treat a range of health issues under various national healthcare systems.

Short-term intensive fasting remodels innate immunity in humans through improving neutrophil function with elevated secretion of cytokines, together with upregulation of autophagy (reuse and removes unnecessary or dysfunctional components through a lysosome-dependent regulated mechanism) and downregulation of apoptosis plus the reactivation of regenerative mechanisms and bio process of cells. Activation of innate immune responses by short-term intensive fasting typically occurs, principally by autophagy. This leads to digestion of aged and affected components as proteins, organelles, lipids substances into amino acids and free fatty acids for recycling, elimination and regeneration of new proteins and organelles.

Autophagy is a highly controlled process that responds to various internal and external stresses or stressors. Both processes utilize surrounding resources to provide energy and nutrients for the cell life cycle. Autophagy progression may proceed to the degradative or secretory pathway. The former is a degradative and lysosome-dependent catabolic process that produces energy and provides nutrients for the synthesis of essential proteins. The degradative pathway also balances the energy source of the cell and regulates tissue homeostasis. The latter is in which the autophagosome is fused with the plasma membrane. Secretory autophagy participates in diverse functions and diseases ranging from the spread of viral, microbial particles to cancer and neurodegenerative diseases. Autophagy is implicated in multiple functions of various cells that forming tissues, including but not limited to decelerating of aging, regenerations, uppression of oncogenesis, and reactivation of immune system. In the cancer treatment, short-term intensive fasting can decrease toxicity and simultaneously increase efficacy of a wide variety of chemotherapeutic agents. It appears safe as an adjunct to chemotherapy in humans, and it may reduce side effects and DNA damage in healthy cells in response to chemotherapy. Two times 72h fasting during a month especially in wound injury efficiently induced faster wound closure, better epidermal and dermal regeneration, less scar formation and higher level of angiogenesis in humans with diabetic or burn wounds.

The practice shows that systematic or time by time fasting during the life time, before diseases, is likely to be more beneficial to therapeutic process, anyway as in time of or after getting sick or have been infected, even in wound healing fasting have effects. Anyway, have a number of diseases where is not recommended prolonged or short-term intensive fasting.

It is important to note that occasional short-term intensive fasting has a significant effect on immune function, the first line of defense against harmful foreign substance (pathogens),

reactivations of innate immunity. The blood cell that is made in the bone marrow, found in the blood, lymph tissue and survival can be promoted by enhanced a recycling process of autophagy and decreased apoptosis process of programmed cell destruction 72h after intensive fasting.

It can be concluded that occasional short-term intensive fasting may be exploited as an immunomodulatory intervention to major functions of the innate immune system to recruit immune cells by producing chemical factors, including chemical mediators cytokines, activate the complement cascade to identify the cells changes (including microorganisms, pathogens, substances etc.), activate cells, and promote clearance of antibody complexes or cell changes and dead cells.

THE INFLUENCE OF MICROFLORA ON THE PATHOGENESIS OF ALLERGIC DISEASES

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Relevance. The urgency of the problem of allergic diseases is extremely high, both due to their high prevalence and due to the fact that they significantly reduce the quality of life. Nowadays, every third person on the planet suffers from some kind of allergic reaction.

World statistics show an increase in the number of patients with allergic diseases by 2 times every 10 years. Thus, according to one study, up to 20% of adults and children in various populations are susceptible to atopic dermatitis. According to the information of the World Allergy Organization (WAO), whichwas obtained from 35 countries, more than 20% of this population may be susceptible to various forms of allergic diseases. According to the World Health Organization (WHO), the rate of sensitization to one or several allergens among school-age children occurs in approximately 40-50% of cases. There has been a continued increase in the prevalence of allergic diseases in developed countries for more than 50 years. Today it is already known that infectious agents are an important factor in the development of allergic diseases, determining both the severity of allergic pathology and the options for choosing the necessary therapy for each individual patient.

An important problem is the socio-economic losses due to allergic diseases. Allergies have a fairly high percentage in the structure of overall morbidity throughout the world, especially in developed countries. American researchers have determined that the economic cost of food allergies in the United States is estimated at $24.8 billion annually ($4,184 per year per child). For example, in the European Union, economic losses associated with allergic diseases amount to about 150 billion euros per year. According to American researchers, this amount can be reduced by 30-90%, subject to optimization of treatment, early diagnosis and prevention of the development of diseases of this origin. Such losses are associated primarily with late diagnosis. In addition, undiagnosed and undetected cases of morbidity were not included in the general statistics.

Aim. Assess the role of microbial factors in the development of allergic diseases.

Materials and methods. Analysis of modern scientific research and literary sources in the field of allergology, immunology, medical microbiology and pathophysiology.

Results and conclusions. Studying the fundamental etiological and pathogenetic aspects of the development of allergic diseases is extremely important for optimizing the diagnosis and treatment of patients with atopic diseases. The influence of microbiota on the development of allergies is being actively studied in different groups of patients and in different directions. It is well known