

## The use of bioresonance therapy in the activation of T-lymphocytes by interleukins

S.L. Chepurnaya  
(LLC "INTERMED", Gorno-Altaysk, Russia)

### Introduction

The biological effects of cytokines and their role in the development of oncopathology are determined by the ratio of pro- and anti-inflammatory cytokines. The role of T-lymphocytes is also undoubted, as well as the interaction of cytokines with T-lymphocytes and the response to the development of oncopathology, chronic infectious and inflammatory processes, with all types of immunosuppressive therapy, AIDS, all primary T-cell immunodeficiencies. Recent research findings are inconsistent. According to some studies, an increase in IL-2 is a poor prognostic sign, as a result, an increase in tumor growth [8]; according to others, the proliferation of T-lymphocytes occurs, the work of immunocompetent cells is enhanced, which is used in the treatment of tumor processes of various localization [1–7, 9, 10, 11].

### Materials and research methods

A large number of diseases are accompanied by disorders in the immune system.

Patients with the following diseases were under observation and treatment:

- chronic and acute infectious and inflammatory processes (bronchitis, tonsillitis, gastroduodenitis, cystitis, pyelonephritis, etc.);
  - chronic and acute infectious and allergic diseases, which are also characterized by genetic defects in the formation of IL-2;
  - autoimmune diseases;
  - secondary immunodeficiencies, AIDS;
  - persons taking immunosuppressive, antibiotic therapy, hormonal therapy. Prescribed from early childhood, these drugs cause iatrogenic diseases and complications. For iatrogenic pathologies, complex combined disorders of the endocrine, immune, and lymphatic systems are characteristic.
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- oncological diseases [2, 7];
  - benign tumor formations.

The lymphatic system is inextricably linked to the immune system. It not only participates in the immune response, but also performs a complex function of drainage, mechanical and biological intracorporeal detoxification, providing protection of the cell at the level of the endoecological space [2, 3, 7].

The use of proinflammatory cytokines, taking into account their interactions and their role in the body, using the ART method, allows you to activate the immune response. IL-2 is a pro-inflammatory cytokine that stimulates the proliferation and differentiation of activated T-lymphocytes and cytotoxic T-cells [1, 2, 4, 5, 6, 7, 9, 10, 11].

IL-2, synthesized mainly by T-lymphocytes, is necessary for the proliferation of T-helpers, T-suppressors, T-killers. The activation of T-lymphocytes is accompanied by the synthesis of IL-2, which further leads to the stimulation of the immune response. IL-2 enhances B-cell growth and synthesis of immunoglobulins, interferon, tumor necrosis factor [1, 2, 5, 6, 7, 9, 10, 11].

Vegetative resonance test allows you to identify and determine the body's immune response, the state of the lymphatic, endocrine systems, the state of peripheral blood lymphocytes. It is possible to change the state of impaired cellular and (or) humoral immunity, the state of blood (lymphocytes in the first place) by performing endogenous BRT according to A.A. Hovsepyan and exogenous BRT. Complex bioresonance therapy allows you to restore the level of cellular and humoral responses within the body's adaptation reserves, to enhance the immune response through the activation of IL-2 lymphocytes, through blood and lymph preparations.

In chronic and acute inflammatory pathology, immunodeficiency, all types of oncopathology, tumor processes, autoimmune diseases, it is possible to activate IL-2 lymphocytes using organs and tissues, as well as to effectively use all the functions of the endoecological space.

#### Output

Thus, the complex application of endogenous BRT according to the method of A.A. Hovsepyan and exogenous BRT allows:

- to activate the IL-2 lymphocytes;
- stimulate proliferation and differentiation of activated T-lymphocytes and cytotoxic T-cells, enhance B-cell growth and synthesis of immunoglobulins, interferon, tumor necrosis factor;
- reduce early and late complications of hormonal and antibiotic therapy in acute and chronic inflammatory and autoimmune diseases;
- to reduce the development of tumor processes in the early stages, the spread of metastases before, during and after specialized therapy;
- restore the immune system in the specialized treatment of cancer;
- to enhance the proliferative response of T-lymphocytes in all chronic infectious and inflammatory processes, malignant diseases, in all types of immunosuppressive therapy, AIDS and all primary T-cell immunodeficiencies.

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