Using a simulation method to determine the effectiveness of phytopreparations Chiriak A., Marinescu S. (Chisinau, Moldova)

A practicing physician in his work is constantly faced with the problem of individual selection of drugs for a particular patient. A modern patient is, as a rule, a chronic patient, overloaded with allopathy with depleted reserves of adaptation, and even herbal medicine, in the general opinion a "soft" method of treatment, requires an answer to the question: to what extent is it permissible for a given patient at this stage of treatment.

Vegetative resonance test carried out using the hardware-software complex "IMEDIS-EXPERT" allows you to apply simulation modeling in order to determine the changes that can occur in the patient's body after taking a phytopreparation.

Medicines obtained from plants (phytochemicals and directly medicinal plants) are widely used in medical practice and play an important role in drug therapy. They are included in more than 85 pharmacotherapeutic groups of drugs and for the most part do not have equivalent synthetic substitutes. It should be noted that in the treatment of some diseases mainly herbal preparations are used. For example, in a number of drugs for the treatment of cardiovascular insufficiency, preparations from plants account for about 80%, and for the treatment of diseases of the liver and gastrointestinal tract - about 75%. Predominantly phytochemicals are antitussives, expectorants, laxatives, astringents and other drugs. This fact is to some extent explained by the fact that many natural compounds (alkaloids, cardenolides, flavonoid glycosides, acylcumarins, etc.), despite the high level of development of organic chemistry, are either impossible to synthesize or economically unprofitable. In addition, phytochemicals contain substances created in a living system, and therefore can organically participate in the metabolic processes of the human body, which allows them to be used in chronic diseases for a long time. It is for this reason that phytochemicals are generally less allergenic than synthetic drugs. Herbal medicines are produced in the form of individual substances, total purified preparations, extracts, tinctures, juices, oils, etc. despite the high level of development of organic chemistry, it is still either impossible to synthesize or economically unprofitable. In addition, phytochemicals contain substances created in a living system, and therefore can organically participate in the metabolic processes of the human body, which allows them to be used in chronic diseases for a long time. It is for this reason that phytochemicals are generally less allergenic than synthetic drugs. Herbal medicines are produced in the form of individual substances, total purified preparations, extracts, tinctures, juices, oils, etc. despite the high level of development of organic chemistry, it is still either impossible to synthesize or economically unprofitable. In addition, phytochemicals contain substances created in a living system, and therefore can organically participate in the metabolic processes of the human body, which allows them to be used in chronic diseases for a long time. It is for this reason that phytochemicals are generally less allergenic than synthetic drugs. Herbal medicines are produced in the form of individual substances, total purified preparations, extracts, tinctures, juices, oils, etc. and therefore can organically participate in the metabolic processes of the human body, which allows them to be used in chronic diseases for a long time. It is for this reason that phytochemicals are generally less allergenic than synthetic drugs. Herbal medicines are produced in the form of individual substances, total purified preparations, extracts, tinctures, juices, oils, etc. and therefore can organically participate in the metabolic processes of the human body, which allows them to be used in chronic diseases for a long time. It is for this reason that phytochemicals are generally less allergenic than synthetic drugs. Herbal medicines are produced in the form of individual substances, total purified preparations, extracts, tinctures, juices, oils, etc.

Traditional methods of extraction of extracts, such as: percolation, maceration, in addition to the duration of the production process, do not allow to completely extract the active substances from the raw materials. New technologies have been developed using a rotary-pulsation extractor (RPA). This technology allows the extraction process to be carried out in a continuous mode. In this case, grinding occurs in a solvent medium with simultaneous extraction of active substances, while the surface of the plant material in contact with the extractant is constantly

increases, at the same time the principles of operation of disintegrators, intensive vortex generators and emitters, colloidal mills and

centrifugal pumps. Preliminary research showed that the biological activity of the extracts obtained in RPA-120 is much higher than the extracts obtained by traditional methods, even with the same content of active substances. It can be assumed that the process of dynamization of the obtained extracts is taking place, as in homeopathic preparations, due to the complex method of extraction and information transfer.

Purpose of the study:

1. The use of simulation modeling in combination with the construction of pathophysiological "chains" according to the method of A. Ovsepyan for the optimal selection of phytopreparations.

2. Comparison of the effectiveness of phytopreparations made by the method percolation and maceration, and phytopreparations manufactured by the rotary pulsation method on the RPA-120 installation

Materials and research methods

56 patients with acute and chronic diseases were examined on the hardware-software complex "IMEDIS-EXPERT"

1. A chain was built along the maximally affected organ - "marker problems ": organ + anabolism / catabolism + acid base balance + stress / depletion + ANS. The phytopreparation and its dose were selected through the tests "effective medication", RA, BI. The selected dose was tested in conjunction with a "marker of the problem", the decrease or increase in the degree of tension or depletion of the ANS, the degree of anabolism / catabolism, and acid-base balance was monitored.

2. The phytopreparation and its dose were selected through the "problem marker", then checked through RA, BI, "effective medication".

Results:

1. Phytopreparations, selected directly through RA, "effective medication "without taking into account the" marker of pathology "did not change the test parameters (anabolism / catabolism, acid-base balance, VNS).

2. Phytopreparations selected through the "pathology marker" changed test parameters are selective. For example, alcoholic extract of lilac reduced the degree of connective tissue catabolism by 1–2 points, alcoholic extract of celandine reduced the degree of anabolism of uterine muscle tissue by 1 point, oil extract of St. John's wort reduced the degree of catabolism of stomach tissue by 2–3 points, and the acidity of this tissue by 1 paragraph.

3. Phytopreparations made in the usual way with alcohol and oil extract, did not have any effect on the marker of pathology. These drugs were responded to by the "effective medication", "tolerable medication" tests.

conclusions

Simulation modeling, carried out as part of a vegetative resonance test using a "pathology marker", is a convenient and reliable way of individual selection of phytopreparations. Phytopreparations made by the rotary-pulsation method affect pathophysiological links of pathological processes, which brings their action closer to the action of homeopathic medicines.

The pharmacological activity of extracts obtained in RPA-120 is much higher than in extracts obtained by simple methods of percolation and maceration, without dynamization.

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