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**MODERN VIEW ON THE MECHANISM OF ACTION OF  
REFLEXOTHERAPY.**

The article presents a review of the literature covering the symptomatic and pathogenetic effects of reflexotherapy. The mechanisms of the effects of acupuncture and the clinical possibilities of this method of treatment are explained.

**Keywords:** reflexology, acupuncture.

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**REFLEKSOTERAPIYANING TA'SIR MEKANIZMIGA ZAMONAVIY  
QARASH.**

Maqolada refleksoterapiyaning simptomatik va patogenetik ta'sirini yorituvchi adabiyotlar sharhi keltirilgan. Akupunktur ta'sirining mexanizmlari va ushbu davolash usulining klinik imkoniyatlari tushuntiriladi.

**Kalit so'zlar:** refleksoterapiya, akupunktur.

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**СОВРЕМЕННЫЙ ВЗГЛЯД НА МЕХАНИЗМ ДЕЙСТВИЯ  
РЕФЛЕКСОТЕРАПИИ.**

В статье представлен обзор литературы, посвященный симптоматическим и патогенетическим эффектам рефлексотерапии. Объяснены механизмы воздействия акупунктуры и клинические возможности этого метода лечения.

**Ключевые слова:** рефлексотерапия, акупунктура.

The popularity of reflexology (RT) methods is incredibly great. In the USA alone, about 2 million people regularly take courses of acupuncture (AP) treatment. Of course, this is primarily due to its analgesic capabilities, in particular with regard to pain associated with pathology of the musculoskeletal system.

Conditionally, it is possible to distinguish the peripheral and central levels of the body's response to RT. The peripheral level involves irritation of skin points and local receptor formations. At the same time one of the possible mechanisms realized when using various RT methods is the recurrent inhibition of the nociceptive flow. In modern neurophysiology, the term "competing afferent flow" is used to explain this phenomenon. In this case, there is a restriction of excessive activity of the motor neurons of the anterior horn, so hypalgesia manifests itself only in the area of a neurotome with a focus of pain and acupuncture irritation [3]

In response to mechanical or electrical stimuli in a prolonged volley of discharges occurs in the posterior horn, as a result of which a painful reaction is suppressed at the level of the lesion segment or the adjacent segment.

There is an opinion that the positive effects of RT are based on the unity of the functional and spatial organization of somatic and visceral relationships. Therefore, with the help of afferent signals from certain areas of the body surface, a corrective effect is carried out on the centers of regulation of the functions of internal organs and systems, and also affects the activity ratios of various neurochemical processes

as in individual structures of the brain, as well as in the complex of brain formations that perform this system function [1].

In addition to relieving pain, AP suppresses the production of opioid and non-opioid peptides - vasopressin, oxytocin, ACTH, with excessive production of which is associated not only adaptive, but also undesirable vegetative manifestations, often arising from pain reactions [5].

On the example of patients suffering from bronchial asthma, it was shown that the acupuncture procedure increases the concentration of  $\beta$ -endorphin by 24%. With pharmacopuncture, the value of this indicator increased by 56%. The increase in the content of catecholamines after pharmacopuncture with the introduction of ephyllin and vitamin B1 into the points was 185%, adrenaline 91%. At the same time, there is a significant effect on the level of cortisol RT it did not, its amount in the blood of the examined did not change either with pharmacopuncture or with AP, that is, the corticotropin-gluocorticoid system did not activate [4].

As it turned out, AP causes complex interdependent homeostatic changes in the body. The most actively involved in the process are indicators of red and white blood, as well as indicators of protein metabolism. Against the background of AP treatment, there is a significant change in the number of eosinophils and segmented leukocytes in peripheral blood. The content of total protein increases, somewhat less often – globulins, and alpha-1- and beta-globulins react already at the early stages of exposure, while alpha-2- and gamma-globulins join the general reaction at the final stages of treatment. In the process of exposure, enzyme metabolism is activated, which entails significant improvements in the detoxification of the body.

An important role in the mechanisms of auriculopuncture belongs to the interaction of the nuclei of a number (V, VII, IX and X) of cranial nerves with the reticular

formation of the brain stem, afferent somatic and visceral systems, due to which auriculotherapy provides an effect on both parts of the autonomic nervous system [1].

The modern method of complex treatment is pharmacopuncture, proposed by R. de la Flue in 1956. At first, it was proposed to use homeopathic preparations as therapeutic agents for AP, later allopathic remedies were also used for this purpose [1, 2]. But in any case in the case of prescribing, the medicine is selected strictly in accordance with its indications [5]. Against the background of the creation of multiple depots of drugs and the summation of the potentials of RT and the drug, there is an increase in analgesic, sedative, muscle relaxant and other effects [2, 6]. Prolonged stimulation of the point is also important. It is possible that due to this mechanism, the effect of treatment of dorsopathies with the chondroprotector alflutop exceeded the results of its use with intramuscular administration [1]. Currently, pharmacopuncture uses vitamins, eufhyllin [4, ], immunostimulants [7], NSAIDs.

The appointment of complex homeopathic medicines can be considered as a promising direction of pharmacopuncture. Biopuncture with Discus compositum made it possible to cope with the exacerbation of myofascial syndrome in the shoulder girdle [6].

**Conclusion.** Thus, AP is a recognized method of treatment. Nevertheless, using this method, the doctor faces a number of problems. This primarily concerns the evidence of the effectiveness of the AP. For many years, attempts have been made to conduct a comparative analysis, to create a control group of people who received pricking at placebo points as opposed to the target points [58]. Such approaches face numerous objections

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