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PROSPECTS FOR THE APPLICATION OF PHARMACOPUNCTURE IN MOTOR DISORDERS AND MYOFASCIAL PAIN SYNDROMES

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ABSTRACT

This article is dedicated to the therapeutic properties of pharmacopuncture (also known as biopuncture), a method based on injecting medicinal substances into reflexotherapy points. The presented material is the result of our research on the effectiveness of pharmacopuncture in pathological conditions associated with pain syndromes and movement restrictions. Pharmacopuncture is classified as an original approach since it combines principles of traditional medicine with classical medical practices. This method aims to achieve therapeutic effects in specific nosological forms by administering medications into reflexotherapy points. Our research revealed that pharmacopuncture using the Midokalm drug, which belongs to the group of central muscle relaxants, demonstrates high efficacy. Additionally, when Midokalm was applied through pharmacopuncture, an enhancement in therapeutic potential was observed.

KEY WORDS: *Reflexotherapy, Pharmacopuncture, Motor Disorders, Muscle Relaxant.*

INTRODUCTION

Pharmacopuncture is a therapeutic method based on the injection of various agents, primarily pharmaceutical drugs, into reflexotherapy points to achieve a therapeutic effect in the treatment of various nosological conditions [1-3,6,10]. Pharmacopuncture can be prescribed for various diseases and conditions; however, it is particularly valuable in the treatment of musculoskeletal system pathologies. One of the main challenges in their treatment is the difficulty of delivering pharmaceutical substances to the tissues of the spine or joints. But pharmacopuncture allows one to “bypass” this limitation and significantly increases the effectiveness of therapy.

AIM

To assess the prospects of using pharmacopuncture for motor disorders and pain syndromes.

The microinvasive treatment of pain syndromes in the back, proposed by V.A. Rybak and co-authors, deserves attention [16]. Local microinvasive therapy provides a good therapeutic effect due to the combination of several factors: the pharmacological action of the drug resulting from its maximum concentration at the pathological site, the mechanical effect of the needle itself, vegetotropic and vascular effects, as well as the powerful psychotherapeutic impact of invasive methods on the patient. Paravertebral points are most commonly used by physicians for drug administration due to their ability to simultaneously affect multiple anatomical structures. Moreover, paravertebral points are extrameridian acupuncture points, making injections into them a form of pharmacopuncture [7, 8,16].

The technique of its implementation varies, which accounts for the diversity of existing definitions: mesotherapy-multiple injections of the drug into the area of the affected metamere; homeosiniatry-the therapeutic use of exclusively homeopathic remedies; biopuncture-the application of not only homeopathic but also phytopharmaceuticals; and pharmacopuncture-in a narrow sense, a branch of clinical pharmacology.

The method became widespread in Europe in the fifties, and in our country, it took half a century to gain recognition. Chronologically, in 2002, we were among the first to systematize the known data at that time [3], and a year later, our colleagues presented the "Practicum on Antihomotoxic Pharmacopuncture." [19].

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Indications for the use of pharmacopuncture correspond to the general indications for reflexotherapy, covering almost the entire list of the International Classification of Diseases, Tenth Revision (ICD-10). It is essential to mention the contraindications to reflexotherapy and, consequently, to pharmacopuncture, the main ones being neoplasms and organ decompensation [5,14].

The essence of the method lies in the injection of medications through thin, hollow metal needles into acupuncture points. Typically, each point receives an injection of zero point one to zero point five milliliters of the medication. The treatment course consists of seven to ten procedures. Technically, the procedure involves subcutaneous or intradermal administration of the drug into the point area, with a dosage of zero point two to zero point three milliliters per locus. Its implementation requires adherence to a set of specific rules:
-The Impact is carried out according to the standard reflexotherapy scheme by stimulating a combination of local, segmental, and general points with the injected substance;
-The Treatment is performed using injections of either a single drug or a "cocktail" consisting of two or more medicinal components;
-If several injections fail to produce the desired effect, it is recommended to replace the prescribed medication;
-The Number of procedures and the dosage of the selected drug correspond to the standard recommendations for its use.

Classical medicine attempts to influence chemical processes in the body using chemical substances to block or transform pathological processes, which manifests as a rapid sensation of recovery. Biological medicine (pharmacopuncture) influences the diseased body by stimulating it with medicinal substances, restoring disrupted regulatory processes and normalizing the functions of organs and systems. Taking into account three key aspects-regulatory influence on an open biological system, binding and elimination of toxic substances harmful to the body, and stimulation of its defense mechanisms-a whole spectrum of medicinal products, known as complex biological preparations, was developed. In particular, these preparations were made from traditional homeopathic medicinal raw materials, as well as from animal organs and tissues (organic preparations) and disease products of humans (nosodes). All these components are processed according to the principles of homeopathic potentization technology. The microdoses entering the body do not cause overload; on the contrary, they stimulate its systems and activate additional defense mechanisms. The consistently high and long-lasting clinical effectiveness of pharmacopuncture, along with the absence of contraindications and side effects, has made this method one of the most popular in Europe today.

The injection of homeopathic preparations into acupuncture points stimulates these points. Essentially, this is one of the methods of stimulation that helps regulate energy circulation, functional activity of the entire body, and normalize its physiological functions. This, in fact, is the special therapeutic effect on acupuncture points, which is manifested with any kind of stimulation applied to them.

In addition to the local irritation that occurs during pharmacopuncture and activates the therapeutic properties of the points, homeopathic medications gradually penetrate the lymphatic and circulatory systems, spreading throughout the body and exerting a therapeutic effect.

The therapeutic mechanisms of this technology include several components. On one hand, the change in the volumetric characteristics of tissues in response to the injection of fluid provides prolonged stimulation of the point. On the other hand, the significance of the formation of multiple drug depots is also considered [15]. Finally, it is hypothetically assumed that complex mechanisms of interaction between the point and the drug are involved, based on the "key to the lock" principle [11]. However, this connection is only observed clinically, not at the level of detailed studies. Therefore, one of the questions regarding the drug's tropism to acupuncture points remains unresolved [20].

On the contrary, in the case of such use of homeopathic remedies, we have established the potentiation of both components, achieving qualitatively new effects [4]. The main research "model" in this case was lumbosacral dorsopathies, and most of the studies, considering established trends, were conducted using muscle relaxants. In the first of these studies, the mechanisms of action were clarified, and the effectiveness of pharmacopuncture with the drug Midocalm was confirmed [15,16]. The choice of this medication is due to its composition, which includes suis-organic vertebral components, making the treatment pathophysiologically significant. The patients under observation with manifestations of dorsopathy were divided into two groups. In the first group, alongside standard procedures, the medication was administered intramuscularly, while in the second group, it was injected into the reflexotherapy points, i.e., through pharmacopuncture. The analysis conducted at the end of the therapy confirmed a statistically significant advantage of pharmacopuncture in terms of the dynamics of several indicators. For example, based on the time required to achieve a stable effect, this method proved to be 1.5 times more effective than the one being compared. This difference was expressed in the increase of muscle strength, reduction of asymmetry in tendon reflexes (up to their somewhat unexplained restoration in some observations), as well as narrowing of the zones of hypesthesia [17.18]. The observed shifts were verified electrophysiologically, manifesting as an improvement in the characteristics of somatosensory evoked potentials specifically in the pharmacopuncture group.

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Similar results were obtained in a study focused on the correction of motor dysfunctions following a stroke [8,21]. The use of bioregulation drugs (in particular, Midocalm) for the treatment of neurological syndromes associated with pain, muscle tone increase, and trophic disturbances is advisable in cases of prolonged pain syndromes in the back during the subacute stage. The course of paravertebral administration of Midocalm typically consists of 5–10 ampoules of 100 mg/ml, 1 ml per ampoule, with an interval between injections of 1-2 days. The contents of each ampoule are administered in 3 injections into 3 paravertebral points [16]. This technique leads to a reduction in pain syndrome, an increase in the range of active movements in the targeted spinal area, and a minimization of the doses and duration of systemic pharmacotherapy, particularly NSAIDs, muscle relaxants, and analgesics, which helps avoid the development of adverse effects from their use.

Here, as in the case with Midocalm, the advantage of pharmacopuncture is noted at a reliable level. Overall, all the studies reveal the beneficial and systemic effects of the method under investigation. Here, as in the case with Midocalm, the advantage of pharmacopuncture is noted at a reliable level. Overall, all the studies reveal the beneficial and systemic effects of the method under investigation.

CONCLUSION

Thus, it is noted for the first time that when muscle relaxants are used according to the principles of biopuncture, a quick and sustained therapeutic result is achieved. It has a high affinity for nerve tissue, reaching the highest concentrations in the brainstem, spinal cord, and peripheral nervous system. The main effect of Midocalm is associated with the inhibition of spinal reflex arcs.

Overall, the effectiveness, safety, and therapeutic reliability of pharmacopuncture, performed with various active agents, have been proven.

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