

Understanding the basics of electrotherapy, Galvanotherapy, Electrophoresis, Darsonvalization.

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Abstract

The article discusses the methods of electrotherapy treatment with Galvanotherapy, Electrophoresis and Darsonvalization in diseases such as neuralgia, vasculitis, diseases of the nervous system, rheumatism of the joints, neurasthenia.

Keywords: Electrotherapy, electric charges, frequency, Galvanotherapy, Electrophoresis, Darsonvalization.

Electrotherapy is used as a painkiller and sedative in a number of diseases such as neuralgia, vasculitis, rheumatism of the joints. When a low-voltage current passes through electrodes to a certain part of the body, physical and chemical processes in the cells change, blood circulation and sleep improve, pain is reduced, inflammatory processes are eliminated, and damaged tissues are restored faster. The use of pulsed currents in electrotherapy gives good results. In particular, low-frequency pulsed currents affect tissues with impaired neuroendocrine regulation, normalizing them, and strengthening the function of certain organs and systems. Electrotherapy is almost safe for the body. This procedure is recommended 1-1.5 hours after eating. The current strength used during the procedure is extremely low and does not harm human health. With the help of low-frequency electric current, a small amount of medicine is injected into the painful area of the body. In modern medicine, low-voltage constant electric current is called Galvanization, alternating currents are called Darsonvalization, and low-frequency pulsed currents are called Electrophoresis. Treatments with alternating or high-frequency alternating and magnetic fields of various frequencies are carried out using electric current. For the purpose of galvanotherapy, a low-power electric current of 30-80V is applied to the body. Galvanic current has a positive effect on the patient's central nervous system, strengthens the heart, ensures the formation of new cells in the body and strengthens the immune system. This method helps in the treatment of radiculitis, neuralgia, circulatory disorders in the head and spinal cord, chronic gastritis, colitis, cholecystitis, biliary dyskinesia, cardiovascular diseases, eye diseases and chronic arthritis.

The electrophoresis method ensures faster absorption of drugs into tissues, further enhancing their effect. Electrophoresis is effective in diseases of the nervous system, musculoskeletal system and gynecological diseases due to its analgesic, vasodilating and metabolic effects. The electrophoresis procedure is painless, and only a slight warming of the injection site or a pricking sensation of needles may be felt. The introduction of drugs into the body using the electrophoresis method is considered preferable to other methods, namely:

1. Drugs are injected into the skin surface without violating its integrity.
2. Drugs do not affect the membranes of the gastrointestinal tract.
3. Drugs form a "depot" under the skin, prolonging the effect.
4. The accumulation of drugs in large quantities in pathological foci enhances their local effect.
5. Drugs enter the body in an ionic state or form, which increases their pharmacological activity.
6. It is possible to simultaneously send liquids of two different drugs from different poles to the body.
7. It can be widely used in the removal of drugs from the body in case of drug poisoning.

In electrophoresis, there is a "law of poles" or "golden" law. A positively charged drug is sent to the body from under the positive electrode, and a negatively charged drug is sent to the body from under the negative electrode. This is because the same or similar charges repel each other, and accordingly, drugs escape from the electrodes and enter the body through the skin.

Darsonvalization is a method of treatment with high voltage up to 20 kV, low voltage 0.015-0.02 mA and high frequency 110 kHz impulse currents, in which Darsonval currents affect the skin through small sparks falling from the electrodes and ions and chemicals that appear in the air from these sparks. The procedure causes the patient to feel a pricking sensation, as well as a feeling of heat. Dorsonval accelerates the metabolism of substances in the skin, treats small purulent wounds, warts, and acne. This procedure accelerates blood circulation in the body, activates the oxygen supply of organs and tissues, and helps to stop severe itching in allergic diseases. i, has an anesthetic effect. Also, dorsonvalization is used to treat depression, insomnia, and vascular diseases. Due to its ability to reduce the excitability of nerve tissue, it is also used in surgery as an anesthetic. The Dorsonval method is beneficial for women who often have headaches, and is also very useful in restoring the health of patients with nervous diseases, insomnia, and chronic fatigue. The "Iskra" apparatus is used for the treatment. It uses 7 different types of glass vacuum electrodes and mainly uses two methods, namely labile and stable.

Contraindications: Inability to withstand current, poor-quality swelling, tendency to bleeding, myocardial infarction, hysteria.

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