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**EXPERIMENTAL CONDITION OF TRANSDERMAL INTRODUCTION OF  
METRODINAZOL SOLUTION (2-METHYL-5-NITRO-1H-IMIDAZOL-1-IL ETANOL)  
TO THE HUMAN BODY BY ELECTROPHORESIS**

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**Actuality.** Metronidazole (2-methyl-5-nitro-1H-imidazol-1-il ethanol) is an antibacterial and antimicrobial preparation. Metronidazole is included to the list of vitally necessary and important medicament preparations.

**The purpose of the research** is the investigation of the introduction into the body of organisms of plant control of the metronidazole with the help of medicinal element electrophoresis.

**Materials and methods.** For the purpose of studying the absorption spectrum in the optimal working river diaphragm, the initial solution of the preparation was diluted 40 times with distilled water. Then the possibility of identifying a preparation was determined with a re-registration of the spectra of the absorption that was registered on a "Cary-500" spectrophotometer. Having placed the working spacer in the cell of fluoroplast with platinum electrodes, it was subjected to the influence of the current of galvanic current and the parameter, adopted in physiotherapeutic practice: time. The exposure time is 20 minutes, the current's volume is 15 mA to establish the stability of metronidazole to the electric current. The source of current is a serial-output device "Flow". The mobility of the river solution metronidazole in an electrical field was determined using the device "Flow".

**Results and its discussion.** The results of the test were shown and the maximum frequency of the metronidazole and the transfer of the structure spectrum in the street of the violet zone of ours is presented in the length of 320 nm. During the study of casual diffusion through the filtering paper, it was established that after 30 minutes at the exposition of spectrophotometrically, an insignificant concentration of metronidazole in the solution was detected from 0.001 to 0.004 mg/ml at mixed repetition of the test. The average concentration of the preparation is  $0.002 \pm 0.0004$  mg/ml. In the result of the research with the use of the food grade of olofan in the quality of membrane, only traces of the residues of the medicinal product were detected with a spontaneous diffusion in the indicated solution. The electrophoretic conductivity of the metronidazole solution. And they were studied using the method of quantitative ionophoresis metrics in 11 volunteers (healthy people at the age of 18-20 years old). After iontophoresis, the starting solution is 40 times dissolving for the study of optical density on a spectrophotometer. Among 11 testing men, the average concentration composed  $4.56 \pm 0.05$  mg/ml. This is 91,2% relative to the initial primary concentration (5 mg/ml). After a session of electrophoresis, the concentration of the preparation in the solution decreased to 8.8% (100-191.2%). Slowly, in the time of one of the procedures of electrophoresis through the skin of the patient passes 8.8% of the solution of the metronidazole, which corresponds to the working diarrhea range of generally known standards in ionophoretic metry (from 5 to 10%). The procedure of medical electrophoresis through the skin is carried out. It is followed by the next sample. After processing the skin with alcohol, the product is laid (sterile strong gauze cap), wetted with Metrogil solution (0.5% height of metronidazole), placed in the lower part and the abdomen in the area of the pathogenic octagus; the electrodes are located horizontally - active (anod) on the area of the pathological point, the cathode - on the sacral area. Procedures are carried out every day with the help of the "Flow" device; Duration is 20 minutes in the current 15 mA. The course of treatment is 7 sessions.

**Conclusions:** The results obtained by the experiment showed that in an electric position the metronidazole solution moves me from the anode to the cathode. The test of ionophoresis metrics showed to the demonstrator that they used one procedure through skin electrophoresis for about 20 minutes with a force of 15 mA in the human skin penetrates 8.8% of the drug, which corresponds to the international standards of iontophoresometry (from 5 to 10%).