

EXPERIENCE IN ADMINISTRATION OF DRUGS USING THE ELECTRODE PHARMAPHORESIS METHOD FOR TREATMENT OF DEGENERATIVE DISEASES OF THE MUSCULOSKELETAL SYSTEM

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Despite the obvious progress in the prevention and treatment of degenerative diseases of the musculoskeletal system, search for new ways of administering drugs for treatment of these diseases is still relevant. The problem is exacerbated in cases of impossibility of surgical or invasive treatments for various reasons, even with expressed degenerative injury of tissues. As preventive and curative therapy develops, the main requirements to modern methods of rational administration of drugs were stated: non-invasiveness, the introduction to the required depth, achievement of sufficient concentration of drugs, lack of side effects, adherence to the principle of biofeedback. We conducted a clinical trial of the transdermal drug administration using "Farmateb Electrode Pharmaphoresis" device by Prof. A. D'Afrique's method. According to the presented data, the method enables phoresis of drugs into the body tissues layer-by-layer to a depth of 12 cm under the influence of an alternating modulated electric current of different shapes and frequencies. Using an electronic microprocessor, differentiated programs of pharmaphoresis of drugs are compiled, corrected and implemented, regardless of the molecular weight and charge. Procedures are accompanied by preliminary and dynamic diagnostic of electrophysiological state of the passable tissues which provides the possibility to adjust the program based on biofeedback. This report presents the experience of administration of chondroprotectors and ethylenediaminetetraacetic acid in order to activate restorative processes in damaged chondral tissue and restoration of the calcified musculotendinous fragment.

The first Patient L., 47 years old, suffering from severe pains since 2009 in the lumbosacral spine and right leg (on the VAS scale, up to 8 points), based on the clinical and radiological examination (MRI dated 14/05/13) was diagnosed with the following: Lumbosacral dorsopathy. Osteochondrosis, uncovertebral spondylarthrosis of L4-S1 vertebrae, herniated discs L5-S1 up to 10 mm, protrusion of L4-L5 up to 3 mm, exacerbation. Lumbar ischialgia syndrome on the right. Despite previous medication and massage therapy, there was no improvement. Between August and September of this year, 12 sessions of electrode pharmaphoresis of ketaprofen 100 mg, chondroitin sulfate 400 mg, glucosamine 500 mg, 3% collagenase, 1 ml karpazim 350 PE were conducted in addition to the low intensity, low frequency magnetic therapy using Easy Quattro PRO (Italy) device, segmental massage, post isometric muscle relaxation of the lumbosacral spine. As a result of the treatment, the well being improved, pain syndrome completely disappeared, positive dynamics of manual diagnostic data was observed. The MRI examination on 16/10/2013 showed: significant reduction in the protrusion of the intervertebral disc L5-S1, pronounced positive dynamics. The Figure No. 1 shows the MRI images before and after the course of rehabilitation therapy.

The second Patient P., 50 years old, throughout the year experienced aching, nagging pain in the right scapular region, shoulder joint with irradiation to the anterolateral surface of the shoulder, sharply aggravated with arm retraction. Upon examination in April 2013, including MRI images, the patient was diagnosed with calcified tendinitis of supra-spinatus muscle of the right shoulder. A course of drug and ultrasound therapy was conducted twice with temporary improvement. In September-October of the current year, 14 sessions of electrode pharmaphoresis with 1% EDTA 10 ml on the projection area of the right supra-spinatus muscle in combination with low-intensity and low frequency magnetic segmental massage were conducted. As a result of treatment, the motion in the shoulder joint was restored, pain ceased. The control x-ray image dated 16/11/13 showed significant decrease of the calcified area, the contrast of calcification remained in form of a "veil". The Figure No. 2 shows the x-ray images before and after treatment.

