GALVANIC VESTIBULAR STIMULATION AND ITS EFFECT ON CHRONIC PAIN SYNDROME IN SPINAL OSTEOCHONDROSIS

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Abstract

Background: Osteochondrosis of the spine (OS) is one of the most common diseases, affecting mainly people over the age of 25 and manifesting itself in various pain syndromes, which often take a chronic course. The main tactic of treatment is medication therapy, which is not always effective. Recent literature shows good results of cold vestibular stimulation (CVS) in central pain syndromes. Galvanic vestibular stimulation (GVS) is analogous to CVS. CVS and HVS can be combined under the single name of vestibular neuromodulation (VNM). In the literature available to us, it was not possible to find works devoted to the use of VNM in pain syndromes caused by OS.

Objective: To test the DHW method for the treatment of chronic pain syndromes in ACP and explain its effectiveness.

Methods: The study involved 46 patients diagnosed with osteochondrosis of the spine in adults suffering from chronic pain syndrome (more than 3 months). The patients were divided into 2 groups. The first group consisted of patients who received only medication therapy according to clinical guidelines and the second group consisted of patients receiving similar medication therapy in combination with a course of GVS, which was carried out using a certified "REAMED-Polaris" device. Anode GVS lasting 40 minutes was carried out in a 2-week course: 1 procedure for 5 days with a break of 2 days (total 10 procedures). The anodes were located bilaterally, the cathode at a distance (above the sternum). The final statistics included 23 patients from the first group and 21 patients from the second group. Subjective assessment of the severity of pain syndrome was carried out according to the Visual Analogue Scale (VAS). The presence of a neuropathic pain component was assessed using the PainDetect questionnaire. Mental status was assessed using the Hospital Anxiety and Depression Scale. Quality of life was assessed using the Quebec and Oswestry questionnaires. Assessment of the patient's condition according to the Aberdeen Osteochondrosis Scale. The results of the questionnaires and scales were processed in Microsoft Excel and SPSSStatistics.

Results: According to all scales and questionnaires, the combination of medication therapy and GVS showed better results than medication therapy alone. On the VAS scale, the difference was 1.45 points. The Oswestry and Aberdeen questionnaires showed a more pronounced difference in the groups: by 2.2 and 2.63 points, respectively. The severity of pain syndrome according to the PainDetect pain questionnaire, on average, was twice as effective in reducing pain symptoms in patients who received a course of

GVS. 88% of patients responded positively to the question about the repeated course of GVS. According to the results of the Hospital Anxiety and Depression Scale, the emotional state of patients receiving GVS was 3.64 times better than in the control group. The quality of life according to the Quebec questionnaire was higher in the group of patients who received a course of GVS.

Conclusions: The combination of medication therapy with GVS is a more effective method in the treatment of chronic pain syndromes in osteochondrosis than therapy with medication alone. The introduction of GVS into the practice of neurologists and physiotherapists will provide better care to patients with osteochondrosis of the spine.

Biography

Sarkisyan Alexander Mikhailovich - graduated from the Tver State Medical University with a degree in pediatrics. He is a resident of the National Medical Research Center for Psychiatry and Neurology named after V.M. Bekhterev, specializing in neurology. He is engaged in the treatment of patients with extrapyramidal pathologies, osteochondrosis and other. The main direction of scientific activity is the use of the DBS technique and other methods of neuromodulation in neurological patients.