AFFECTIVE SYNDROMES IN ADULTS WITH CHRONIC LOW BACK PAIN

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Dear editor,

Low back pain can have as organic or non-specific, as psychological etiology. It is known that psychological factors have some relationship with adjustment to persistent pain, that is factors leading to increased/worse or decreased/improved adjustment to back pain. Thus, there is an actualization of attention to the social context of pain (Keefe et al. 2004). Psychological factors play an important role in experiencing pain and may occur in various somatic disorders (Boiko et al. 2021; Cherkin et al. 2016). Based on the evidence, there is a need to evaluate and consider the psychological sphere as a holistic integrative structure for more effective treatment of patients with low back pain.

We conducted a case-control study in the Communal Enterprise "1st City Clinical Hospital of the Poltava City Council" during October-January 2021. The study was approved by the local ethical committee and carried out according to the Helsinki Declaration. The study included 19 people with complaints of neuropathic pain in the lower back who were divided into 2 groups: group 1 included 18 people with neuropathic pain; group 2 included 21 people with nonspecific pain.

The diagnostic criteria include experiencing low back pain in adults that is limited to somatic pain or non-radicular pain, which is restricted to just above the knee, and has persisted for more than 12 weeks. Exclusion criteria were the presence of physical damage, inflammatory arthritis, secondary low back pain, deformity and undergone lumbar surgery, pain below the knee, and back pain that caused associated with the spread in several areas.

We used Douleur Neuropathique 4 Questionnaire (DN 4), Visual Analog Scale (VAS) and Hospital Anxiety and Depression Scale (HADS) to assess patients. For the statistical calculation of the data, we used EZR 1.34 and Microsoft Excel Office 2016, the Mann-Whitney test and Kruskal-Wallis test with Steel-Dwass post hoc analysis, Fisher's test, and tau-c-test.

Group 1 consists of 18 patients (7 (38.9%) males and 11 (61.1%) females) aged 42.7±15.8 years with disease duration 4.3±3.2 years. Group 2 includes 21 patients (11 (52.4%) males and 10 (47.6%) females) aged 42.7±15.8 years with disease duration 4.3±3.2 years. We have not found statistical significance differences by age, sex or disease duration. Group 1 showed clinically expressed symptoms of depression with a score of 12.5 (7.8-15.8) points, while Group 2 had an absence of depressive symptoms with a score of 5.0 (2.0-8.0) points. The average value of the total score of the anxiety level on the HADS scale indicated the absence of anxiety in both groups (4,5 (3,0-7,5) in group 1 vs. 3,0 (2,0-4,0) in group 2). In Groups 1 and 2, the average value of the total score of pain level on the VAS scale was at the level of moderate pain in both groups (4,5 (3,0-7,5) in group 1 vs. 3,0 (2,0-4,0) in group 2). Depression, anxiety and pain severity were statistically significant higher in patients with neuropathic pain (p=0.016, p=0.032 and p=0.033 respectively), but anxiety levels didn't demonstrate clinically significant differences.

Type of pain had a moderate direct correlation with depression severity in patients with lower back pain (t=0.479, p=0.013). When comparing all patients with different levels of depression, statistically significant differences in severity of pain syndrome were found (p=0.026). Patients without signs of depression had the average score on the VAS scale at 3.0 (2.0-4.0) points, with subclinical depression - 2.5 (2.0-3.75) points, and with clinically expressed depression - 5.5 (3.75-8.0) points. It was established that the severity of the pain syndrome is higher in clinical depression (p=0.021 vs. subclinical and p=0.029 vs. no depression). There were no differences in the intensity of pain between patients with subclinical depression and those without it. We did not establish differences in the severity of neuropathic pain depending on the anxiety level (p=0.115).

Low back pain is affected by social, psychological, and biological factors, so interdisciplinary treatment plans should take all these into account. Adequate treatment and prevention of pain in the lower back is considered an important task for patients from the risk group, as it allows to reduce high healthcare costs (Knezevic et al. 2021).

We have established a greater severity of pain and depressive syndromes in neuropathic type compared to non-specific. Similar results were obtained when comparing neuropathic pain with nociceptive pain (Smart et al. 2012). We found that patients with neuropathic pain are more prone to depression, however, the severity of neuropathic manifestations does not increase as its degree increases. Our results also supported by the study which have demonstrated that depressed patients with neuropathic pain had higher pain severity (Hiyama et al. 2016).

Therefore, patients suffering from low back pain have different severity of affective symptoms depending on its type. Neuropathic pain may be associated with higher depression due to higher severity, which should be noted in the choosing of treatment approaches.

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EFFECT OF VAGAL NERVE STIMULATION AND JACOBSON RELAXATION TECHNIQUE ON AGORAPHOBIA AMONG POST NEUROLOGICAL ILL-PATIENTS

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Dear Editor,

We would like to share our experience with the Psychiatria Danubina audience that agoraphobia is a form of phobia, often known as irritational fear. When confronted with specific things, events, or behaviors, people with phobias experience fear or anxiety (Wittchen 2008). Agoraphobia is the most common type of phobia, affecting 5-12 percent of Americans at some point in their lives (McCabe et.al 2006). An individual who suffers from anxiety has a family who suffers from agoraphobia, has been through trauma, or has lost a loved one and is at an increased risk of developing agoraphobia. Agoraphobia affects women twice as much as it does males, and it usually strikes between the ages of 15 and 35 (Manjunatha et.al. 2022).

An anxiety disorder is defined by a fear of particular situations in which the individual feels panicked, such as open areas, crowded areas, and places where rescue appears difficult. Post neurological ill patients are post-stroke, post-infectious autoimmune neurological disorders (Blackburn et. al. 2020), and postcentral and peripheral nervous disorders have agoraphobia which is need to be identified and need to be treated. The Participants were included of both genders, Age group – 18-60 years, Participants who were diagnosed with agoraphobia by the severity measure of agoraphobia and who scores above 20. The participants who were excluded were participants who were not interested in the study, Pregnancy women, Asthma, Abuse of drugs or alcohol in the 4 weeks before enrolment, Patients with metal implants, malformation of the pinna, and all other disorders of the pinna or meatus.

The current treatments for agoraphobia are medications including Selective serotonin reuptake inhibitors and Benzodiazepines. The other treatments are psychotherapy and CBT (Adwas et.al. 2019)**.** But these Non-invasive transcutaneous auricular vagus nerve stimulation devices, which do not require surgical implantation and are applied using external appliances such as clip electrodes, have become popular in recent years and Jacobson relaxation techniques have played a major role in reducing agoraphobia for post neurological ill-patients.

The purpose of this study was to examine the effects of a Non-invasive transcutaneous auricular Vagal nerve stimulation and Jacobson relaxation technique on reducing agoraphobia among Post neurological ill-population. The study utilized a randomized controlled trial design with 40 participants assigned to either a treatment group that received the Non-invasive transcutaneous auricular Vagal nerve stimulation and Jacobson relaxation technique or a control group that received only the Jacobson relaxation technique. The Intervention group A received the Transcutaneous auricular vagal nerve stimulation for 20 minutes (30S ON and 3 minutes OFF) and the Jacobson relaxation technique for 20 minutes, 4 days/ week, and a single session per day for a duration of 4 weeks and the Pre and Post-test values of Group A obtained using SMA shown in Table 1.