

PSYCHOEMOTIONAL CAUSES OF CHRONIFICATION OF THE BACK PAIN

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Abstract. In this article we have discussed about connection between pain chronicity and personal characteristics in the psycho-emotional sphere.

Keywords: low back pain, depression, personality, anxiety, chronic pain, lumboischialgia.

A special place among musculoskeletal pain syndromes is occupied by pain syndromes of lumbosacral localization. From 58% to 84% of the adult population have ever experienced low back pain, among them 17% suffer from chronic pain (Ivanichev G.A., 2000; Khabirov F.A., 2006; Devereaux M.W., 2004). The relevance of this problem is determined by the growing number of patients with dorsalgia, represented mainly by people of working age, which is recognized as an important medical and social problem (Popelyansky Ya.Yu., 2003; Khabirov F.A., 2006; Deyo R.A., Weinstein J.N., 2001; Turk D.C., 2001). Due to the fact that the peak incidence occurs during working age, the problem of low back pain also has economic significance. Economic damage includes not only direct losses in the form of direct costs for the provision of medical care and social benefits (due to temporary or permanent loss of ability to work), but also indirect losses - in the form of damage from work not performed and decreased performance (Ivanichev G.A., 2000; Alekseev V.V., 2003; Khabirov F.A., 2006; Hall N., 2003; Wasiak R. Et al., 2006).

Many researchers believe that in almost 90% of cases the cause of lumbar pain is muscular-tonic and myofascial syndromes, and vertebrogenic disorders account for no more than 10% (Belova A.N., 2000; Ivanichev G.A., 2000; Voznesenskaya T. G., 2001; Gustov A.V., 2001; Alekseev V.V. 2004; Khabirov F.A., 2006).

People aged 25 to 49 years whose work involves static and dynamic physical activity are at greater risk of back pain. Microtraumatization of the structures of the musculoskeletal system, due to heavy physical work, prolonged stay in an anti-physiological position, and a disrupted movement pattern can be the cause of back pain. This is largely due to professional activities associated with certain unfavourable factors in the labor process, such as non-mechanized physical labor, long stays in a forced position, and performing monotonous labor operations.

Currently, research shows that there is an interaction between stressful situations, the appearance of complaints of pain and the transition of pain into a chronic form (Osipova V.V., 2001; Croft P.R. et al., 2001; Whyte A.S., Niven C.A., 2001)

According to T.G. Voznesenskaya (2001) the mental factor is “provoking” of the debut or exacerbation of vertebrogenic pain in 10% of men and 25% of women.

Back pain itself is a powerful source of mental stress and negative affect (Evans R.W., Mathew N.T., 2000; Peters M.L. et al., 2000). The ascending flow of pain impulses changes the functional state of the brain, creating physiological prerequisites for increasing the level of anxiety and decreasing the threshold of sensitivity to psychogenic stimuli (Hui K.K. et al., 2000). It has been established that the main neurophysiological characteristic of chronic pain syndromes in the absence of structural damage to the brain is the hyperexcitability of its afferent systems (Yakhno., Shtulman D.R., 2003). In addition, restrictions on daily activities caused by the disease contribute to emotional maladjustment.

In the majority of patients with pain syndromes of the lumbosacral localization, pain first appeared at the age of 30-49 years - 76.1% of patients. Back pain appeared at the age of 16-29 in 20.9% of patients and only in 3.0% of patients after 50 years.

Purpose of the study: to study the connection between pain chronicity and personal characteristics in the psycho-emotional sphere.

Materials and methods. The study was conducted at the ASMI clinics in the departments of neurology, vertebrology and neurosurgery. The study included 25 patients (40% men; 60% women) aged from 20 to 45 with chronic back pain with a pain duration of more than 12 weeks. Assessment methods included the Pain Detect Neuropathic Pain Questionnaire; visual analogue scale (VAS) for pain severity; Oswestry Disability Index; Beck Depression Inventory.

Results. The average age of patients with the onset of low back pain was 35.6 ± 8.1 years. The onset of lumboischialgia occurred at an earlier age (average age 33.9 ± 9.1 years) than the onset of lumbosacral radiculopathy - average age 36.9 ± 6.9 years ($p < 0.05$).

In 43.1% of patients, the disease occurred with rare exacerbations (no more than once a year), in 50.6% of patients there were 2-3 exacerbations per year, and in 6.3% of those examined, exacerbations were frequent (4-5 times a year). The duration of the pain syndrome from the onset to the present exacerbation varied from 6 months to 31 years and was up to 1 year in 6.7% of patients, from 1 to 4 years in 31.4%, from 5 to 9 years in 29.7%, from 10 to 19 years - in 24.7%, 20 years or more - in 7.5% of patients.

In patients with back pain, the indicator of reactive anxiety (median and interquartile range) was 44.0 points (from 36.0 to 49.0 points), the indicator of personal anxiety (median and interquartile range) was 48.0 points (from 43.0, 0 to 52.0 points).

When studying anxiety indicators using the Spielberger test, a distinction is made between reactive (situational) anxiety, that is, anxiety as a state arising under the influence of current psychological stress, and personal anxiety, that is, anxiety as a personality trait. The level of personal anxiety in patients with back pain was

statistically significantly higher than the level of reactive anxiety ($p < 0.001$). Based on the data obtained, it can be assumed that a personality feature of patients with pain syndromes is the initial presence of anxiety as a character trait.

The Beck depression score (median and interquartile range) in patients with lumbosacral pain syndromes at the time of admission to the hospital was 13.0 points (from 9.0 to 16.0 points).

Asthenic disorders before treatment, when assessed on the MFI-20 scale, turned out more significant, with fluctuations in the indicator of general asthenia from 7 to 20 points: median 16.0 points (interquartile range from 13.0 to 17.0 points). At the same time, patients with severe physical asthenia predominated - median 16.0 points (interquartile range from 13.0 to 18.0 points) and decreased activity - median 14.0 points (interquartile range from 12.0 to 16.0 points). The score for decreased motivation (median and interquartile range) was 9.0 points (from 7.0 to 12.0 points), mental asthenia - 10.0 points (from 7.0 to 13.0 points).

In the group of patients who assessed the pain syndrome as severe, the indicators of personal anxiety, depression and asthenia were statistically significantly higher than in patients with moderate and severe pain. Among patients with moderate intensity of pain, the level of mental maladjustment was lower than in those with severe pain.

Patients with low personal anxiety more often rated the pain syndrome as moderate (66.7%, $p < 0.01$). Patients with high personal anxiety were statistically significantly more likely to rate their pain as severe. (61.9% and 9.4%, $p < 0.05$). Thus, the level of personal anxiety had a significant impact on patients' subjective assessment of the intensity of pain.

Conclusions. Chronic back pain syndrome often occurs in comorbidity with depressive disorder on the background of high personal anxiety. Our results serve as a rationale for introducing assessment of psycho-emotional status into the routine examination of patients with chronic back pain syndrome and their early medical correction.

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