



## PSYCHONEUROLOGICAL ASPECTS OF CHRONIC PAIN SYNDROME IN LUMBAR RADICULOPATHY

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### ABOUT ARTICLE

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**Key words:** Chronic lumbar radiculopathy, pain syndrome.

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**Abstract:** Discogenic radiculopathy is the most severe form of degenerative-dystrophic lesion of the spine, which is based on disc degeneration with subsequent involvement of adjacent vertebral bodies, intervertebral joints, and ligamentous apparatus [2,8]. So far, there are many unresolved questions in the etiology and pathogenesis of this disease. Despite the progress in understanding the pathomorphology and clinic of discogenic radiculopathy, the search for pathogenetic, and, therefore, highly effective treatment has not been completed [4,15].

Today, in the practice of a neurologist, the definition of lumbosacral radiculopathy (RCR) is widespread as a nosology characterized by damage to the nerve roots at the lumbosacral level with damage to the intervertebral discs (IVD) and joints of the spinal motion segments (SDS), ligamentous and muscular apparatus with the formation compression-ischemic and concomitant muscular-tonic syndromes caused by functional overstrain of organs and systems.

In this paper, in accordance with the international trend, the term “chronic lumbar radiculopathy” refers to chronic pain in the lumbar region of non-visceral etiology.

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**ЛОМБЕР РАДИКУЛОПАТИЯДАГИ СУРУНКАЛИ ОҒРИҚ СИНДРОМИНИНГ  
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**МАҚОЛА ҲАҚИДА**

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**Калит сўзлар:** Сурункали ломбер радикулопатия, оғриқ синдроми.

**Аннотация:** Дискоген радикулопатия — умуртқа поғонасининг дегенератив-дистрофик шикастланишининг энг оғир шакли бўлиб, у кўшни умуртқали таналар, интервертебрал бўғинлар ва лигаментли аппаратларнинг кейинги иштироки билан диск дегенерациясига асосланган [2,8]. Ҳозиргача ушбу касалликнинг этиологияси ва патогенезида ҳал қилинмаган кўплаб саволлар мавжуд. Дискоген радикулопатиянинг патоморфологияси ва клиникасини тушунишда эришилган ютуқларга қарамай, патогенетик ва шунинг учун юқори самарали даволашни излаш тугалланмаган [4,15].

Бугунги кунда невролог амалиётида лумбосакрал радикулопатия (РСР) таърифи интервертебрал дисклар (ИВД) ва орқа мия ҳаракат сегментларининг бўғимлари шикастланиши билан лумбосакрал даражадаги нерв илдизларининг шикастланиши билан тавсифланган нозология сифатида кенг тарқалган. СДС), аъзолар ва тизимларнинг функционал ҳаддан ташқари кучланишидан келиб чиқадиган сиқилиш-ишемик ва бирга келадиган мушак-тоник синдромларнинг шаклланиши билан боғлиқ ва мушак аппарати.

Ушбу мақолада, халқаро тенденцияга мувофиқ, «сурункали ломбер радикулопатия» атамаси висцерал бўлмаган этиологиянинг ломбер минтақадаги сурункали оғриғига ишора қилади.

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**ПСИХОНЕВРОЛОГИЧЕСКИЕ АСПЕКТЫ ХРОНИЗАЦИИ БОЛЕВОГО СИНДРОМА ПРИ ПОЯСНИЧНОЙ РАДИКУЛОПАТИИ****М.Б. Уринов***Исследователь**Бухарский государственный медицинский институт**Бухара, Узбекистан***М.М. Усмонов***Исследователь**Бухарский государственный медицинский институт**Бухара, Узбекистан*

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**О СТАТЬЕ**

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**Ключевые слова:** Хроническая поясничная радикулопатия, болевой синдром.

**Аннотация:** Дискогенная радикулопатия – наиболее тяжелая форма дегенеративно-дистрофического поражения позвоночника, в основе которого лежит дегенерация диска с последующим вовлечением тел смежных позвонков, межпозвонковых суставов и связочного аппарата [2,8]. До настоящего времени в этиологии и патогенезе этого заболевания остается много нерешенных вопросов. Несмотря на прогресс в понимании патоморфологии и клиники дискогенной радикулопатии, поиск патогенетического, а, следовательно, высокоэффективного лечения не завершен [4,15].

На сегодняшний день в практике невролога распространено определение пояснично-крестцовой радикулопатии (ПКР) как нозологии, характеризующейся поражением нервных корешков на пояснично-крестцовом уровне с повреждением межпозвонковых дисков (МПД) и суставов позвоночно-двигательных сегментов (ПДС), связочного и мышечного аппаратов с формированием компрессионно-ишемических и сопутствующих мышечно-тонических синдромов, обусловленных функциональным перенапряжением органов и систем.

В данной работе, в соответствии с международной тенденцией, под термином «хроническая поясничная радикулопатия» подразумевается хронический болевой синдром в поясничной области невисцеральной этиологии.

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## INTRODUCTION

Modern understanding of pain is formed as a complex experience that entails physiological, sensory, emotional, cognitive and behavioral responses. Pain is defined as an unpleasant feeling and negative emotional experience associated with both overt or covert damage and the condition described as damage (16,26).

Acute back pain is distinguished - movement intolerance in case of damage to the spine or back muscles, lasting up to 3 months and chronic, more than 3 months, determined by duration, resistance to therapy, and the absence of direct dependence on the cause that caused it [7,19]. It is believed that the risk zone for the transition of acute pain to chronic lies between 6-12 weeks from the onset of the disease [1,18]. It has been established that in 75% of acute back pains stop almost spontaneously no later than the 4th week and in 90% no later than the 6th from the onset of the disease. However, relapses are observed in 29-44%, which are recorded in 60% during the first year, and the pain takes a chronic course [9,10,25]. Studies indicate a significant role in the formation and maintenance of chronic pain syndrome of biological, psychological and sociocultural factors, considered within the framework of the bio-psycho-socio-cultural model [12,23,27]. A feature of vertebrogenic pain is the combination of nerve fiber sensitization with changes in the psychoemotional and psychosocial sphere, which contributes to its aggravation and chronicity. At the same time, back pain can be of a purely psychogenic nature, when mental factors play the main role in the occurrence, severity, intensification and persistence of pain, and the pain itself is a product of the patient's altered perception. Thus, in the pathophysiological mechanisms of pain, there are: nociceptive, psychogenic, neuropathic, which can replace, complement and aggravate each other [17,28]. A feature of vertebrogenic pain is the combination of nerve fiber sensitization with changes in the psychoemotional and psychosocial sphere, which contributes to its aggravation and chronicity. At the same time, back pain can be of a purely psychogenic nature, when mental factors play the main role in the occurrence, severity, intensification and persistence of pain, and the pain itself is a product of the patient's altered perception. Thus, in the pathophysiological mechanisms of pain, there are: nociceptive, psychogenic, neuropathic, which can replace, complement and aggravate each other [17,28]. A feature of vertebrogenic pain is the combination of nerve fiber sensitization with changes in the psychoemotional and psychosocial sphere, which contributes to its aggravation and chronicity. At the same time, back pain can be of a purely psychogenic nature, when mental factors play the main role in the occurrence, severity, intensification and persistence of pain, and the pain itself is a product of the patient's altered perception. Thus, in the pathophysiological mechanisms of pain, there are: nociceptive, psychogenic, neuropathic, which can replace, complement and aggravate each other [17,28]. and pain itself is the product of the patient's altered perception. Thus, in the pathophysiological

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### **THE MAIN FINDINGS AND RESULTS**

One of the key moments in the formation of chronic pain and its psychosomatic component lies in the sensitization of nerve endings and the maintenance of excitation in the parts of the central nervous system, leading to the reorganization of the processes of excitation and inhibition in the sensory and motor components, a change in the rhythm of the electroencephalogram, dysfunction of the cortical-subcortical relations, the formation somatosensory "pain memory" with negative emotional coloring and the development of a pain strategy of behavior [14,25]. Regardless of the primary mechanisms, the transition of the pain syndrome to the chronic form is significantly affected by anatomical and functional disorders, personal, emotional, cognitive, psychosocial factors, and the presence of pain attitudes in patients with a non-adaptive behavioral strategy [1]. Many authors point out that such patients show signs of "painful behavior", accompanied by a desire for social protection, guardianship, a feeling of abandonment, rejection, presenting oneself as a victim, "catastrophizing" the state, fear of provoking pain, and, as a result, a decrease in all types of activity, "going to sickness, looking for the cause of his suffering. All this worsens the clinical picture of the pain syndrome and rehabilitation opportunities [6,13,22,24]. According to the study, more than 40% of people experiencing chronic pain syndrome indicate a significant deterioration in all aspects of the quality of life, up to the loss of a job in 19% and the development of depression in 21% of cases [11]. In this regard, some multidisciplinary programs consider chronic pain as a disease similar to diabetes or asthma,

Thus, the main reasons for the transition of pain into a chronic form, which is essentially an independent disease, are central and peripheral sensitization against the background of constant pain impulses, long-term muscle spasm; inadequate therapy, as well as background or newly emerging anxiety and depressive disorders [2,20].

### **CONCLUSION**

Many issues of the pathogenesis of pain in discogenic lumbosacral radiculopathy, the possibility of regression of a herniated intervertebral disc, as well as the effectiveness of conservative and surgical treatment remain unclear and require further study. In our country, there have been no long-term comparative studies of conservative and surgical approaches to the treatment of discogenic radiculopathy.

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