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WHITENER PAIN - CHARACTERISTIC AND FRACTURE

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Summary:

Back pain can be dull dull character, which most often are located only in the lumbar area, in the case where there was not a disagreement radicular -vertebral, or may radiate to the lower limbs, depending on the level and degree of compression of the spinal roots. With a high degree of changes occurring that contribute to the emergence of a significant narrowing of the intervertebral holes and as a result the pressure on the roots, sensory and motor symptoms depend on the level and degree of oppression. It should, however, take into account that even large osteophytes on the anterior-lateral edges of the vertebral bodies, which do not give the roots of oppression, may be clinically silent almost symptomatically. Proper diagnosis, determine the type of pain as well as to diagnose the cause of the pain is important in the further process of rehabilitation.

Key words: Whitener pain

Mechanical and biochemical pain syndromes

The reason for the occurrence of pain of varying degrees of severity may be structures that belong to the spine or are associated with it only anatomically. The substrate can be a pain, damage to both structural and functional disorders occurring. The pain, which is called the back pain can come from elements of both the spine and as a result compressions or structures due to irritation of the nervous system. In addition, damage can occur in tissues or vertebral groove such as muscle or ligament. Adequate diagnosis of checking the reason for the occurrence of pain is important in subsequent therapy. It is also important differentiation of pain coming from the internal organs, which affect pain in the spine, pain or are closely associated with the same pathology of the spine, and sometimes also mistakenly interpreted as a symptom of disease in another location. [14, 12]

All structures of the spine are subject to stresses, deformations or displacements depending on their individual physiological capabilities. In the event of irregularities in their functioning can lead to compression of the nerve endings that lie within them. In the case where there is a possible range of distortion is exceeded and charges may be of the patient to episodes of occurrence of short-term pain. What you should know that these episodes of pain may occur at any stage of life, and then quickly disappear. The occurrence of such kind of pain indicates that there has been an overload of one of the elements of the spine.

Pain has a positive physiological significance of the warning and prevention, eg. During the procedure, which is performed badly and usually leads to the cessation of such activities. Lifting a heavy object. You can also specify that the pain physiological safeguard the integrity of the spine anatomy and warns against damage to its individual components. [14, 19]

The intervertebral discs make up a movable connection between the individual segments of the anterior column, as well as functional are of articulation. In addition, the mobility of the segments are responsible facet ponds that belong to the component of the rear column. Considering the concept of the construction of a two-column joints is most often overload the anterior column, because she carries the largest number of loads summing them well in time. [14]

Lever mechanism which performs spine when lifting or lifting weights causes even several times larger than the weight of the load heave object. Occurring degenerative damage to the intervertebral discs and their displacement otherwise known as "discectomy" is the basis of epidemiological data by approx. 80% of all back pain and radicular teams. [14, 7]

Very often seen cases in which the intensity of the pain area and do not interact with the degree of abnormality. They tend to be cases in which patients after the test, for example. Magnetic resonance for reasons other than pain have shown changes in compression within the spinal canal, or a general degeneration of the spine, while not complain of any pain in the area of the spine. Similarly, while there are cases of patients who suffer from large back pain and their imaging studies show a slight radiological changes.

Mechanical factors, such as pressure or mechanical stretching around the nerve endings is essential to induce microtrauma and accompanying pain to initiate a series of biochemical reactions repair bearing characteristics with a component of the lighting process. The occurrence of biochemical processes responsible for the maintenance of the pain response and the transition phase of a chronic inflammation. [9.17]

Diagnosis of pain syndrome

Qualitative characteristics of pain

Pain is the biggest enemy of good quality of life, regardless of age or gender as a spontaneous and sensual feeling accompanying a man throughout his life. According to the International Association for the Study of Pain IASP (Internationale Assiotaiation for the

Study of Pain) pain is defined as *"unpleasant sensory and emotional sensation associated with actual or impending tissue damage. It is in each case providing an alarm about the threat to health or life."* [4.13]

The pain, which is caused by external stimuli is defined physiological pain. It is a pain that is mainly due to activation of the stimulus on the body surface. And all other stimuli that flow from the interior of the body, most of the internal organs, causing the occurrence of so-called. pathological pain. The pain can be caused by any stimulus, which contributes to the formation of tissue damage or a potential threat to them. The physiological mechanism of pain stimuli pass circuit when the roots of the dorsal horn of the spinal cord and then through the spinothalamic lateral and medial reaching the hill. Through the spinothalamic pain is the most important route, but next to it there are other systems upward conduction of pain. Conduction of pain in various ways due to the important role played by the pain for the proper functioning of the body and its protection from destruction and, therefore, there is some pain pathways to the cerebral cortex. [3,5]

In the human body there is a huge amount of pain receptors known. Nociceptors, which are designed to respond to appropriate stimuli. The phenomenon of pain sensation is mainly related to the reception, conduction and processing in the central nervous system signals that are harmful or threatening to the body. In our orgasm can also occur without pain stimulation of nociceptors and nociceptive system, it is the most common psychogenic pain and various types of neuralgia. In most tissues they are next to each other kinds of pain receptors, such as:

- a) unimodal receptors also referred to as a kind that respond exclusively to one stimulus, eg. mechanically.
- b) polymodal receptors - They react to several different stimuli by having branches. Most nociceptors under the influence of appropriate incentives physical or chemical stimulation is followed by the start-processing mechanisms. However, some conditions require specific receptors, is to be excited. For them to be part of the joint so-called nociceptors. silent, which after activation of the motor even strong incentives are inert towards them. At the time of occurrence of inflammation in the joint, causing very substantial reduction of the threshold of excitability, which expresses the feeling severe pain. [5]

Characterization and evaluation of pain

The subjective pain sensation shape of pain following components:

- a) sensory componentpain - the most important in acute pain superficial, because it transmits information on the location of the stimulus response, during the uprising, as well as the severity of the pain disappeared
- b) emotional component- is defined as an unpleasant sensation, and is usually part of a liberating feeling the suffering of the patient. Emotional component plays a particularly important in patients with chronic pain.
- c) Component autonomous -visceral accompanied by pain which results of the vegetative reflex reaction and is dependent on the severity of pain. Component autonomous crashes different reactions of the local blood supply and general disturbance in particular in the circulatory system, respiratory tract, and in the bowels. In states of extreme pain often triggers stormy and dangerous systemic reactions
- d) motor componentpain - manifests itself mainly in the form of defense, increased muscle tension and any movements. At the time of the dangerous stimulus that triggers pain, there are four components of pain, which vary in severity, the domination of one of the components of the image and become current of pain.

MEASURING PAIN

pain measurementIt is difficult due to the large subjectivity for each patient, and some small-accuracy measuring instruments. Pain measurement algometry that is divided into:

- algometry objective -is based on the measurement motor and autonomic responses to the pain and registration of brain evoked potentials.
- Algometry subjective -is determined on the basis of the determination of a particular pain threshold and tolerance of pain, duration of pain as well as pain intensity. Pain intensity is measured very frequently used, but a high degree of subjectivity and is based on the different instruments in the form of questionnaire measuring [4.13]

The pain - psychological aspect

The pain for our body or its parts is an indispensable element of human life. The pain is referred to also as one of the vital signs next to the respiration, maintenance of heart rate or body heat. Element of signaling abnormalities in our body is the pain of an acute pain. In contrast, chronic pain is defined as pain that persists for more than 3 months is considered a disease that affects the aspect of the physiological, psychological and social aspect.

Pain consists of four interrelated stages.

- a) Stage I - patients experience characterized by sensory discriminatory
- b) Stage II - predominates feeling discomfort that results from the mold with a slight feeling reaction involving cognitive
- c) Stage III - represents the suffering of the patient, which shows the emotional reactions associated with the opinion of the patient about pain,
- d) Stage IV - referred to as behavioral expression of pain [21, 22,23]

Types of back pain

Pain is one of the complex phenomena and includes processes [14]:

1. transduction - is to change the energy of the stimulus bioelectric pain stimulus, this process takes place at the level of nociceptor.
2. Conduction - these processes occur in the nervous system.
3. Bioelectrical - modulation signal is held in the central and peripheral nervous system.
4. Perception - occurs only within the cerebral cortex. [3,5]

Pain rating scale

Pain rating scale is a simple and common tool for assessing pain. Self-assessment and the assessment of third parties using the appropriate scale is currently the most common way to measure pain, although it is not devoid of subjective evaluation on the part of the patient and the examiner. In addition to evaluating pain intensity scales, there are many questionnaires allowing to describe his character:

- The scale of visual - analogue VAS (Visual Analogue Score) called the most popular. visual scale. On a scale of 10 cm length, determines the intensity of pain, wherein the standard 0 means no pain, and 10 the strongest pain imaginable.

- Verbal pain scale (Descriptive) VRS (Rating Verbal Scale) is a six-step scale. The examiner reads the individual stages and the patient selects an item that is marked on the scale. When measuring scale VRS is possible to clarify the degree of pain, but also by the patient prompting,
- The numeric scale of pain intensity NRS (Numerical Rating Scale) is used to assess pain in numerical scale, with 0 being no pain and 10 the strongest pain that the patient may imagine.
- Visual pain scale for children FAS (Facial Affective Scale) available in two versions: consisting of 9 or 5 face images. The scale of five pictorial is easier and causes less erroneous ratings

Summary

Analyzing the literature concerning the area describe the pain you can meet with many divisions pain. One of them is a pain receptor different physiological pain whose etiology is associated with teasing nociceptors. Another of them is the pain of non-receptor, which can include neuropathic pain. Often such a division is not sufficient due to a number of diseases, as a result of which there are two types of pain while at the same time. As a result of this disorder, we have to deal with the occurrence of mixed pain and the treatment of only one kind of pain can not bring tangible results. [6,8]

Neuropathic pain can be divided into peripheral, central and complex regional pain syndrome. According to the International Association Against Pain neuropathic pain resulting from damage or dysfunction of the nervous system, and their pathological mechanism is not fully understood. [4, 20] evaluating the pain scale, must take into account the margin of error having been subjected to the suggestion of pain. Pain is a symptom of that received by each patient individually.

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