

Chronic Lumbalgia		Healthcare Keywords: back pain, lumbago, hernia, vertebral column.
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<p style="text-align: center;">Abstract</p> <p>In literature there is a confusion about the etymology and the prevalence of lumbar pain, especially for chronic lumbar pain. Chronic lumbar pain generally defines that kind of a kind of chronic pathology which lasts more than 7-12 weeks. Some of the other authors define it as chronic disorder which is extended beyond the time that a cure or significant improvement is expected. Several authors have found a correlation between chronic back pain with a certain socioeconomic status and psychological or sociological problems of patients. Private or public health insurance companies use other criteria and often different for chronic lumbagos definition based on the financial compensation paid by them over a period of time. An average of 25-30% of people have at least one episode of lumbago in the last three months with a touchscreen that runs at 75-80% over the life of an adult person. In our study were included 469 patients from 35-65 years and were followed for a period of two years 43% (201 patients) females, 57% (268 patients) males.</p>		

Introduction

Lumbalgia is a very common pathology in active populations worldwide. Otherwise known as Lower back pain is not a special disease, but is a symptom that occurs with pain, limitation of movement amplitude, limitation in performing daily activities etc. This comes as a result of changes to structures in the lumbal region.

Pain motivates us to withdraw from situations that can cause us harm, protect the damaged parts of the body until they recover, and also to avoid such situations in the future. This is shown by stimulation of receptors in the peripheral nervous system or from damage and malfunction of the peripheral and central nervous system.

Pains in the back are fairly common problems in all of the world's population, each person in his life has experienced at least once backaches. From back pain are affected both sexes, slightly more males, mostly middle age (30 and 50 years), it's because of the physical strain that faces this age.

Pain in the lower part of the backbone may have originated from: skin, muscles, ligaments, spinal cord and vertebrae, intervertebral disc, spinal cord and internal organs. Appearance of pain in the lower backbone and favor also physiological irregular distortions, bends of the spinal cord (scoliosis, kyphosis, hiperlordosis, hypolordosis etc) where we do not have bilateral muscular harmony, be that of spinal muscles, muscles of the thighs complex, in relation to those of the abdomen, etc.

Consequently, the load is not distributed properly and balanced on both sides, the direction of force does not fall in the center of the ring, respectively intervertebral disc which results in the appearance of a unilateral or bilateral pain.

Based on their length, back pains are divided into two phases: *acute* and *chronic*. The definition of duration is not always unique.

Acute phase usually includes pain under six weeks, while chronic phases over six weeks. In some texts is also found the term *subacute pains* which has a duration of six to twelve weeks.

Most acute pains are caused by trauma to the lower back or by rheumatic disorders with rapid development. Pain from trauma is caused primarily by sports' injuries, various chores around the house, carrying large loads, such as accidents and unexpected engine shocks, etc.

Symptoms estimate as muscular pains, limiting flexibility and amplitude of movement, inability to walk and stand upright. While chronic pain are those where the pain lasts more than three months. One of the most common causes of back pain is disc hernia.

Disc hernia. Disc hernia is the main factor that leads to back pain, nerve root compression where the pain occurs on the extent of nerve, loss of feeling in the feet, depending on the level where it occurs, restriction of movements etc. Disc hernia is presented as a swelling of the disc, where part of the nucleus pulposus makes pressure to annulus fibrosus, and in more advanced cases does cracks.

Based on the pressure that the nucleus does to annulus it is characterized in four stages:

1. Protrusion – the disc usually more often trumpets post-laterally, pressures annulus, but it does not crack it.
2. Prolapse - only the outer fibers of annulus suffer cracks and contain nucleus.
3. Extrusion - annulus is affected by the nucleus pulposus up to the epidural space
4. Sequestration - fragments of the disc annulus fibrosus and nucleus pulposus trap off the disc.

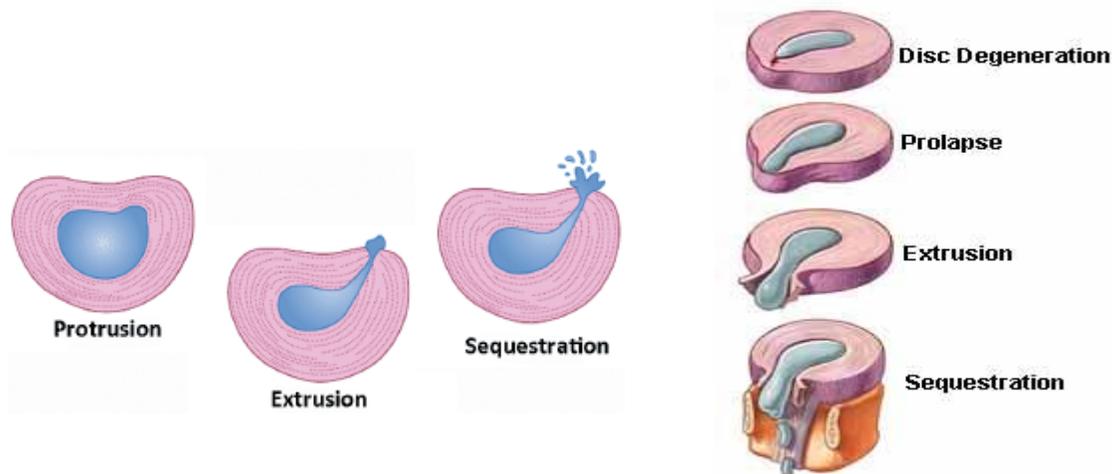


Fig. Stages of disc hernia

A swelling or rupture of the intervertebral disc is quite pronounced in two bottom segments L4-L5 and L5-S1.

Swelling or sequestered disc material irritates one or more nerve roots (often ischiadic or femoral) and dural wraps that are associated with pressure and inflammation, a fact which results in pain and paresthesia in the spinal part coupled through one or two limbs.

Lesions of the disc usually appear on posterolateral part and because of this they attack the roots of the spinal nerves. But during accidents, it can happen even central lesions which can make compression of the nerve roots located in the center (S2, S3, S4), which then irritate the urinary bladder, sphincters, where it appears the bladder paralysis. This is an indication for urgent surgical intervention and physical therapy should stop or should not begin at all.

Lumbar spinal stenosis, occurs when dealing with spinal canal narrowing between the rings. These are presented in foot pain and numbness associated with muscular strength and weakness. This condition is often referred to as claudicacion neurogena.

As mentioned above in short, back pains are mostly caused by the accumulation of persistent microtraumae that are made in the lumbar nucleus, rarely by any stroke or any immediate trauma. Pains in the back belong to two categories: 1. Disorders of muscular-skeletal system and 2. the spinal cord disease.

In the first category enter all pains caused by muscle injuries, ligamentous, facet joints injuries, muscular constraints, muscular strains and ligamentous, etc. Obviously these injuries can come repeatedly by accumulating the problem continuously which this results then in greater pain.

Usually as the main factor we can mention:

The position of body - as during work activities where the position is mostly in flexion position (bending forward), sitting position (as before the computer, TV, books, etc.) which is also with the head forward, shrugged shoulders that lasts for hours, during sleep position, the bed where one sleeps (which should be moderately strong)

Decreased physical activity - very often people who have pain may also be laborers who do physical work, but the muscles that are activated during the jobs they do are chest muscles, muscles, ankles muscles, and paravertebral muscles and backbone muscles in general are in a position of tension - extension, which if done consistently makes the muscles to be issued and when activated it has no necessary capacity to cope with the load and can be hurt (myalgia).

Age - as another factor which affects back pain. Obviously an older person has greater predisposition for injury to musculoskeletal structures during heavier work. Just as muscles, ligaments, articular capsules, intervertebral disk with age lose elasticity, flexibility, and strength to cope with heavy work and as a result, back pain may occur more frequently.

Obesity - is also a factor that causes muscular imbalance of responsibility to ensure a muscular stability in the transfer of different weights or body itself.

Abnormal physiological bend - where we have a transfer and irregular dispersion of weight between vertebrae - intervertebral disc. If in the lumbar part the curve is larger or smaller we will not have a regular distribution of oppression along the intervertebral discs. This results in a more pronounced activation of the structures surrounding the lumbar part, because there is greater mobility and it is made the transfer of weight from the upper to the lower sacral part - lower limbs L4-L5, L5-S1.

Stress and psychological component – it is a factor that helps increase the pain, but sometimes the back pain causes the stress. About 75-80% of patients with lumbago have been at least with a confirmed psychiatric nature and about 50% have acute symptoms that meet clinical criteria for such a disorder. 50% of patients have personality disorders 54% have shown depressive syndrome. (Polatin et al).

Patients and methods

In our study 469 patients were included from both sexes which were followed for a period of at least two years for the clinical syndrome of clinical lumbago. Patients were 30-65 years old (between 45, 5 yrs). There is an emphasis of age group distribution from 46-55 years which coincides with increased physical activity at a time when the first elements of cartilage tissue degeneration are displayed which are responsible for this pathology.

Table 1. Distribution by age and sex.

Age/Sex	Age 30-45	Age 46-55	Age 56-65	Total
Males	78	145	35	268
Females	56	102	43	201

Based on the duration of clinical symptoms with which patients were presented at the first visit to the doctor or an orthopedic specialist for rheumatologist or rheumatologic patients were grouped into three groups taking as a time criterion complaints that go beyond the limit of 6 weeks. Prolonged time of symptoms does not exclude previous visits to the family doctor for which we do not have accurate data. The full data are presented in tab 2.

Tab 2. Clinical symptoms before the visit from the specialist

	7-12 weeks	13-24 weeks	25-36 weeks	> 36 weeks
Males	56	68	88	56
Females	45	64	32	60

Our patients were all subjected to a conservative treatment with analgesics, nonsteroidal anti-inflammatory, physiotherapy, chiropractic services. Based on clinical progress and almost complete recovery with previous relapse in patients's activities were categorized into three groups according to the time of recovery. Most patients with lumbago are recovered well and without consequences or functional deficits. In our study group 75% of patients in both sexes (351 of 469 patients) were recovered within 6 weeks. In total 85% were recovered within 12 weeks (399 of 469 patients). Only 15% of patients had to be treated for 24 weeks for a full recovery without recidiv. (see table 3)

Table 3. Recuperation on time according to sex

	6 weeks	6-12 weeks	12-24 weeks
Males	207	26	35
Females	144	21	36
Total	351	47	71

In connection with the underlying etiological cause of the clinical syndrome only 25% of total patients (117 of 469 patients) were confirmed with typical clinical data and imagery for disc hernia. The rest failed to be situated exactly because of the initial cause of the seizure of explosive chronic lumbalgic pain. The chronic pain is linked more to the complaints which somehow hide the primary explosive element. In many cases the explosive factors or precipitant factors overlap with unspecified initial attack.

Discussion

In the back pain we naturally have preventive measures which, if we follow it faithfully then back pains will be with smaller intensity or will not appear at all.

As preventive measures could be included:

- raising the weights correctly.
- correct sitting on the chair for a long time
- shoes must be suitable with orthopedic lift up to 5 cm
- sleeping bed must be moderately strong, pillow must also be appropriate where the physiological bends of cervical, thoracic and lumbar portions must be in a straight line.
- making physical activity (various sports, fitness exercises for all muscles of the body, different yoga or special exercises for back pain learned during therapy).
- keeping control of body weight has a great importance.
- swimming, fast walking and running exercises are very effective in preventing back pain.
- more important preventive measure is to control the children during their early ages and identification of physiological deformities of the spinal bone.

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