

Diagnosis and Treatment of Low Back Pain: A Medical Care

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Abstract

Low back pain occurs as a result of a variety of causes and pathological conditions, and because it is sometimes difficult to diagnose, there are times when the physician has no other choice than to make a diagnosis of low back pain, which simply describes the symptom. However, when examining low back pain patients, an effort must be in our everyday lives by consigning primary industries that entail bending the body forward, such as tilling fields, to electrical power and petroleum energy.

Keywords: Therapy; Surgery; Treatment; Abdominal organs; Counselling

Introduction

Despite affecting such a large number of people, the incidence of low back pain rises even higher with age, and approximately construction workers complain of low back pain. However, a report on the incidence of low back pain among employees in the construction industry based on a survey of workers at construction sites and office workers revealed a rate in the construction workers and in the clerical workers, and there was little difference in the incidence of low back pain between them [1].

Even if the number of primary industry workers decreases in the future, the number of people providing nursing care in the service industries is expected to increase to thousands nationwide, and since they experience low back pain, it seems valid to conclude that low back pain is a symptom that human beings will find difficult to escape. Although there seem to be many other symptoms. Clinical aspects of low back pain made to make a diagnosis according to its etiology based on the history, physical findings, and results of the diagnostic tests, because identifying the etiology is essential to providing appropriate treatment [2]. Low back pain caused by trauma Acute muscular low back pain occurs when exposure to an external force, such as in a collision with a person or while lifting a heavy object, damages muscles and fascia, while lumbar intervertebral disc herniation occurs when an intervertebral disc collapses and compresses nerves anteriorly, and traumatic vertebral body fractures occur when a vertebral body collapses as a result of a fall, etc. Chronic muscular low back pain develops when repetitive muscle use is performed over and over again, and fragile vertebral body fractures associated with osteoporosis occur when bone fragility progresses and bones collapse even in the absence of exposure to major external force [3]. Low back pain caused by inflammation Tuberculosis spondylitis or purulent spondylitis develops when tubercle bacilli or pyogenic bacteria destroy vertebral bodies or intervertebral discs. If the vertebrae are connected like bamboo, the patient has spondylitis, a rheumatic disease that is negative for rheumatoid factor. Low back pain caused by tumours Malignant tumours, such as lung cancer, stomach cancer, breast cancer, prostate cancer, etc., sometimes metastasize to the lumbar spine, and disseminated metastasis to the lumbar spine is one of the pathological pictures of multiple myeloma. When tumours such as neuromas or angiomas develop in the lumbar cord or lumbar spine, patients experience intense low back pain [4]. Low back pain caused by degeneration As construction workers advance in age, their incidence of low back pain increases, and the Diseases Associated with Low Back Pain Classified According to Etiology Disease Lumbar intervertebral

disc hernia Muscular Tuberculosis spondylitis Inflammation Purulent spondylitis Ankylosing spondylitis Spinal metastasis by malignant tumours, Tumours Multiple myeloma Spinal cord tumors Spondylosis deformans Intervertebral disc degeneration . Degeneration intervertebral articular low back pain Lumbar non-spondylolytic spondylolisthesis, Ankylosing spinal hyperostosis Lumbar spinal canal stenosis Abdominal organs Diseases of the liver, gallbladder, pancreas, etc. Psychological Psychogenic low back pain, in hysteria, depression, etc. increases is attributable to the development of lesions associated with degeneration of the lumbar spine and surrounding tissues. Degeneration leads to the development of spondylosis deformans, lumbar intervertebral disc degeneration, intervertebral articular low back pain, lumbar non-spondylolytic spondylolisthesis, ankylosing spinal hyperostosis, and lumbar spinal stenosis [5]. Low back pain due to other causes In addition to diseases that arise in the structures that compose the lower back, which is the pivot of the body, pain arising from diseases of intra-abdominal organs, including the liver, gallbladder, and pancreas, and referred pain are also seen among the diseases that give rise to low back pain. Pain also arises from posterior abdominal organs, including the uterus, ovaries, and urine bladder. The existence of psychogenic pain associated with hysteria and depression must also not be forgotten [6]. Diagnosis of Low Back Pain When low back pain has been determined Tuberculosis spondylitis Purulent spondylitis Spondylosis deformans Ankylosing spinal hyperostosis Spinal metastasis by a malignant tumour Vertebral body fractures Acute muscular low back pain Chronic muscular low back pain Spondylolisthesis Straight leg-raising test Lower extremity muscle test First, inspect for curvature of the spinal column anteriorly, posteriorly, and to the right or left. No curvature to the right or left is seen in normal persons, but when the spinal column is curved laterally and tilted in just one direction, interpret it as representing scoliosis in an effort to avoid pain, and consider lumbar intervertebral disc hernia or intervertebral disc degeneration. If the center of the scoliosis is in the thoracic spine and compensatory scoliosis in the opposite direction in

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the lumbar spine gives the spine as a whole the shape of the letter “S”, consider idiopathic scoliosis. When the lower back protrudes posteriorly in a gentle manner, interpret it as representing kyphosis, and consider Scheuermann’s disease if the patient is young, and osteoporosis if the patient is an elderly woman. If the posterior protrusion of the lumbar portion of the back is steep, it often represents an old case of tuberculosis spondylitis. A state in which the flexion and extension movements of the spinal column are poor is described as “stiffness”, and the spinal column is as rigid as bamboo and exhibits stiffness in spondylosis deformans, ankylosing spinal hyperostosis, and ankylosing spondylitis. Intense low back pain and stiffness of the spinal column occur in the initial stage of tuberculosis spondylitis and in purulent spondylitis [7]. In diseases in which pain is elicited by tapping or palpating spinal processes at the centre of the posterior of the spinal column, there is spinal metastasis by a malignant tumour or a vertebral body fracture in addition to the above-described spondylitis. When tenderness is elicited in the paravertebral muscles immediately adjacent to the lumbar spine, consider acute muscular low back pain, caused by a sudden tear of muscle or fascia in the same area, or chronic muscular low back pain. In lumbar spinal stenosis, tenderness is observed along the ends of the gluteus major nerve in the super lateral area of the buttocks or along the centre of the posterior aspect of the thigh. While touching the spinal processes of the lower lumbar vertebrae, have the patient flex and extend the lumbar spine, and palpate the vertebral bodies for instability, in other words, to see whether they slide due to spondylolisthesis. In addition to examining the lower back, other methods that are useful in making a definitive diagnosis of low back pain are the stiffness test, in which the patient bends forward and the distance between the fingertips and the floor is measured, and the straight leg raising test, in which the legs are raised with the knees extended in the supine position. Testing sensation, muscle strength, and tendon reflexes in the legs and determining whether paralysis is present in the area supplied by the sciatic nerves are also important from a diagnostic standpoint. Low back pain originating in abdominal and posterior abdominal organs [8]. Low back pain due to spinal metastases of malignant tumours Cure the low back pain by treating the underlying disease. Low back pain that can be cured by surgery Decide whether to perform surgery in the early stage or after monitoring the patient conservatively. Low back pain without indications for surgery. Rest, Restriction of physical activity, or local rest with a corset, etc. Physical therapy, Principally thermotherapy, but also traction. Exercise therapy Attempt to increase muscle strength and produce a natural corset by means of abdominal and low back muscles, to perform stretch and relaxation exercises, and to increase bone strength by imposing mechanical loads on bones. Orthoses, Not just immobilizing the low back, but eliminating pain by correcting kyphosis and scoliosis as much as possible. Drug therapy, Curative therapy with antibiotics or anti-tubercular agents, symptomatic therapy with anti-inflammatory analgesics, and elimination of pain by means of local blocks and nerve blocks. Psychotherapy, Counselling for chronic low back pain and

psychogenic low back pain. Guidance for everyday living: Guidance in regard to inappropriate life styles and work. Treatment of Low Back Pain Because of the diverse etiology of low back pain, there are various methods of treating it, and the principles of treatment [9,10].

Conclusion

Treatment of the causative disease Treatment of the underlying disease causing the pain is given priority in patients complaining of low back pain originating in abdominal or posterior abdominal organs. Treatment with anticancer drugs, radiation therapy, etc., must be considered in patients complaining of low back pain who have spinal metastases of malignant tumours or bone lesions produced by multiple myeloma.

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Conflict of Interest

None

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