

Clinical Morphology and Pathogenesis of Spinal Osteochondrosis with Neurological Manifestations after Mastoectomy

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Abstract

The review analyzes some aspects of the clinical morphology and pathogenesis of spinal osteochondrosis with neurological signs after one-and two-stage mastoectomy. The main focus in the diagnosis and treatment of breast cancer is on maximum individualization of treatment and improving the quality of life.

Keywords:

clinical morphology,
pathogenesis, spinal
osteochondrosis, breast
cancer

Breast cancer (BC) is one of the most common forms of malignant neoplasms. This, on the one hand, explains the great interest in studying various aspects of the diagnosis and treatment of this pathology, and on the other hand, the possibility of obtaining high – quality scientific material in a relatively short time, which can be used as the basis for medical and diagnostic standards. This article discusses some of the most important and interesting, in our opinion, works of recent years. Some of the presented studies were initiated much earlier, however, the analysis of the material, which requires a certain period of observation, has become possible only now.

Global statistics show that the annual incidence of breast cancer is growing more rapidly in developing countries than in economically developed countries . In 2018, according to WHO data, 1,670,000 new cases of breast cancer were registered, which accounted for 25% of all cases of malignant tumors.

The problem of breast cancer is no less relevant in Uzbekistan . According to Almuradova D. M., breast cancer occupies the 1st place among all malignant tumors in women in the Republic of Uzbekistan — 20.9%, while the largest share (30%) falls on patients who are of working age and socially active.

Usually, this disease is diagnosed at stages I-II — 60-65% of patients, but stage II occurs 5 times more often than stage I. According to data from the cancer registry for 2019, the number of patients diagnosed with breast cancer, established for the first time in their lives, is 96.2 per 100 thousand. population. At the same time, there is a clear trend towards an increase in the frequency of new breast cancer cases: in 2005 — 64.8 per 100 population, in 2010 — 74.5 per 100 thousand. population, 2015 — 76.7 per 100 thousand. population [4]. In total, as of 2020, 426.4 cases of breast cancer were registered per 100 thousand people. population In the Republic Uzbekistan, with a lower morbidity rate compared to European countries, has a higher

mortality rate, which is due to the presence of a number of unresolved issues in the field of timely diagnosis of the disease and treatment, " Almuradova D. M. emphasizes.

Mastectomy is the most effective way to treat a breast tumor. Unfortunately, breast removal entails not only psychological discomfort, but also physical inconvenience. After surgery, women complain of a feeling of soreness in the neck and back, tightness of the skin at the site of surgery. The consequence of radical surgery can also be a deformity of the chest. A common complication of this method of surgical treatment is the curvature of the chest due to the lack of muscle tissue and the formation of extensive scars. Radiation therapy also contributes to the development of deformities – under its influence, dense connective tissue forms in the irradiation zone, which aggravates the pathological curvature. [5]. The connection of the spine with all the nearest zones is obvious, along the base of the musculoskeletal system there are main blood vessels and nerve fibers.

With the development of cervical, thoracic or lumbar osteochondrosis, many unpleasant symptoms occur, including pain. A person often complains of pain in the nearest areas – the head, limbs, internal organs. Despite the fact that a woman feels discomfort in the tissues of the breast, the source of pain is a spasmodic muscle. The epicenter is located behind the breast, and unpleasant sensations are given to the left or right gland.

Exclude the development of other pathologies with chest pain is not worth it. There are many diseases that provoke such a symptom.

As a result of deformity, the shape of the chest changes, and it begins to "bulge". All this can lead to a violation of breathing on the side of the curvature, pain due to compression of the nerve endings and weakness of the muscles of the upper limb. The absence of the mammary gland leads to a redistribution of the load on the thoracic spine, which contributes to the development of secondary changes in the osteoarticular system, aggravating the deformity. Therefore, in order to prevent disorders of the musculoskeletal system, women who have undergone a mastectomy are recommended to have a recovery operation. breast cancer. Reconstruction is performed using the implant or the patient's own tissues taken from various parts of the body.

Still 1904 W. S. Handley formulated the principle of surgical treatment of tumors "removal of the primary tumor with a single block, along with the surrounding lymph vessels and nodes containing cancer emboli that have entered them through the lymphatic pathways" [23]. With according to this principle, the main The best method in the treatment of breast cancer patients remains radical surgery, which is performed in 95% of patients in Uzbekistan . In 90% of women after radical treatment of breast cancer in one degree or another, it is noted that 3 nos of the brachial vascular nerve bundle lesion and scalenus syndrome. [7] Motor disorder is characterized by increased hand fatigue, difficulty or delirium of fine professional skills, and decreased muscle strength. Most patients 3-5

years after surgery, according to manual and X-ray examination of the spine, developed biomechanical disorders in the form of scoliotic curvature : functional curvature and functional blockage of the vertebral motor segments in the cervical and thoracic regions. department of the spine. [9]. Distribution of functional blockade occurred in segments with II-CI, CVI-CVII on the intact side With III-CV, ThIII-ThVI – on the affected area. In addition, functional blocking of the vertebral segments at the thoracic level was most often accompanied by blocking of the costal segment.- transverse joints on the side of the operation .[11.]. In 63% of cases, functional blocking was pathological and psychologically manifested by pain and limited mobility in the empty segments. In addition to the above-described disorders, other neurological disorders that have appeared or worsened in patients after surgery are also of interest[20.]It should be noted that there is currently a steady increase in the number of patients with spinal diseases after mastoectomy in the world . In this regard, the question of the economic component in the structure of total health care costs becomes more acute. According to the US National Institute of Neurological Disorders, the annual cost associated with back pain is \$ 100 million (National Institutes of Health Publication number 03-5161, 2013). Thus, despite the existence of many studies in this area, the problem of studying the complication of spinal column surgery remains relevant at the present time, as the world is experiencing a steady increase in the incidence and prevalence of this pathology. To consider the current concepts of the occurrence of various neurological manifestations of ACP, it is necessary to briefly dwell on the views that previously preceded these new provisions in neuropathology. Back pain, lumbosacral..Due to the fact that back pain (sciatica) is often accompanied by static disorders, especially scoliosis, some authors have suggested that the root cause of the disease should be sought in the spine [21]. Sikar's works on the secondary occurrence of sciatica due to changes in the bone structures of the spine were very useful for understanding the pathogenesis of back pain and radicular pathology [15]. Sicard and his students (Boliot, Forestier) put forward a theory about neurodocyte, i.e. about compression of nerves (funiculi) in the bone channels of the spine. Sikar emphasized the special location of these parts of the peripheral nervous system. nervous system and their close anatomical and physiological connection with the bone-binding apparatus of the spine [19]. In subsequent years, the role of spinal dystrophic lesions as the main cause of back pain and radicular syndromes was determined. It is noteworthy that the study of dystrophic changes in the spine and radiculopathies (radiculitis) for quite a long time went independently of each other and pathogenetically were not connected with each other. Thus, R. Beneke in 1897 noted dystrophic changes in the spine and collectively designated them by the term “spondylosis”, a C. G. Schmorl and H. Von Luschka, having carefully studied the pathomorphological changes in the intervertebral disc and adjacent vertebral bodies, suggested calling them interbodyosteocondrosis (osteocondrosisintercorporalis), but they did not pay any attention to the relationship between root inflammation and these lesions [17]. It should be remembered that knowledge about intervertebral

discs has a long history. As early as 1655, Vesalius first described the structure of intervertebral discs, and only a century later Domenico Cotugno (1764) described sciatica as a disease [23]. First illustration, which depicted the posterior protrusion of the gelatinous nucleus of the intervertebral disc, appeared in 1824 in a book by Charlie Well, published in London, and a complete description of the intervertebral disc was made later by Virchow in 1837 [1, 9]. Progressive degenerative diseases It is proposed to divide destructive changes in intervertebral discs into the following stages (with a noticeable transition from one to another): initial manifestations of disc degeneration (discopathy); rupture of the fibrous ring with possible intra – disc dislocation of the pulpous nucleus ("protrusion") or protrusion of part of the fibrous capsule ("latent protrusion", "latent prolapse"); deformation of the nucleus at the site of rupture of the disc capsule and its protrusion ("incomplete prolapse", "threatening prolapse")., "annular protrusion", "protruding disc"); complete protrusion ("disc prolapse", "core prolapse", "disc herniation"); regression and restoration of intervertebral disc remnants at the site of prolapse [3, 18, 24]. The structural organization of herniated discs depends on the age of patients. Thus, in young patients, the herniated disc contains areas of the pulpous nucleus, which represent most of the tissue components of hernias, and in older and elderly patients, disc herniations are formed mainly by dense connective tissue and fibroly altered cartilage [4, 18].

Advances in modern oncology and morphology have led to the need to solve new problems associated with postmastectomy syndrome. In many scientific organizations Some studies have shown that changes in the vertebral column occur to some extent after mastectomy. In the literature available to us, we did not find data on the degree of curvature of the vertebral column depending on the volume and duration of the mastectomy performed. There is no data on changes in the morphometric parameters of the chest and their relationship with the degree of changes in the spinal column after single or double mastectomy

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