Occurrence of Pain Syndrome Due to Osteoparosis in Patients with Breast Cancer

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Abstract: Today, specific treatment for breast cancer leads to a decrease in estrogen-sex hormones, as a result of which the reduction of bone marrow and the development of osteoporosis is an urgent problem for many patients. 150 women were interviewed to improve the efficiency of diagnosis of osteoporosis in order to identify osteoporosis and improve the quality of life of patients with breast cancer and pain syndrome of fertile age. Breast cancer was diagnosed in 101 (67.3%) women, osteoporosis and osteopenia were diagnosed in 49 (32.6%) women without breast cancer, pain syndrome was diagnosed in 76.6% of cases.

Keywords: osteoporosis, osteopenia, fertile age, antioxidant therapy, pain syndrome,

Relevance: Breast cancer (breast cancer) is the most common malignant tumor in women, the number of new cases of the disease in the world exceeds 2.3 million per year. In recent years, the number of women who have been diagnosed with malignant tumor diseases, including breast cancer, an increase in the size of the cervix, uterus and ovaries, is one of the necessary problems that should be solved not only by medical professionals, but also by employees of many other organizations. Therefore, European countries pay special attention to SCRI investigations [14,16]

Throughout their lives, one in seven women in the United States and one in ten women in Russia suffer from breast cancer [5].Breast cancer ranks first in Russia in the structure of the incidence of malignant neoplasms among women and is 21.2 out of 100 thousand women [4].In 2018, 3,578 women with cancer were registered in Uzbekistan. Today, about 18 thousand women suffer from ocular aching pain. The five-year mortality rate is now 45%, the annual mortality rate is 1.1% [5].

Against the background of treatment of breast cancereksex, in most cases in patients causes the occurrence of osteoporosis and is observed pain syndrome. The cause of the development of metabolic disorders of bone structure in osteoporosis is the disease itself and the important methods of treating breast cancer, including multivariate factors, polycimyosis, hormone therapy and medical castration [15,17,21].Endocrine therapy can lead to a decrease in bone mineral density (smz) under the influence of estrogens (tamoxifen in premenopause women), reducing the amount in the blood (aromatase inhibitors, releasing hormone analogues) [21].In addition, some chemotherapeutic drugs cause a rapid decrease in smz, as well as ovarian dystrophy with the development of early menopause, have a direct damaging effect on bone tissue To date, special treatment of breast cancer (endocrine therapy, chemo – therapeutic and medical castration) estrogens-is an urgent problem that leads to a decrease in sex hormones and, as a result, a decrease in bone mass and the development of osteoporosis in cop patients.Despite the fact that timely treatment of osteoporosis can reduce the number of complications after 40-60%, the diagnosis is made in less than 25% cases in women, as a result of which the same layer of patients do not receive appropriate adequate treatment [6].Osteoporosis is a phenomenon that adversely affects the quality of life of patients with cancer, primarily because of its occurrence with a persistent pain syndrome [17].Evaluation of the state of the exchange of chemical elements in the body allows to accurately assess the effectiveness of its functional systems and the risk of developing certain pathological conditions with sufficient accuracy [3,17]. At present, numerous scientific data have been obtained confirming the relationship between insufficient supply of Bioelements to the human body and the

occurrence of various diseases, including oncological diseases [7].In particular, it is known that kaltsium (sa) belongs to non-volatile valence metals, its sufficient amount in the body and normal metabolism is considered an important protective anti-oncological barrier [5].

Objective: to improve the effectiveness of the diagnosis of osteoporosis in order to detect osteoporosis and improve the quality of life in patients with cancer of the breast and pain syndrome in the age of fertil.

Research material and methods: the scientific work is based on a survey of 150 women :of these, 101nafari (67.3%) were women with breast cancer, while 49 (32.6%) were women without breast cancer who did not receive treatment, 53 patients with breast cancer from the age of 30 to the age of 50, and 48 women from the comparison group were examined.The study was conducted in the Riovariatm Buxoro branch based on the clinic from 2018 to 2020 year.

Norms included in the survey: histologically investigated patients of fertil age, who suffered from breast cancer.Patients who underwent osteossintigraphy to exclude bone metastases were taken. Exclusion criteria: primary-malignant tumors, patients with bone metastases, patients taking glucocorticoids more than 3 months, high doses of l-thyroxine, thyroid gland diseases, adrenal glands. The norms of exclusion from the control group examination were the following: early menopause, glucocorticoids, thyroid diseases, adrenal glands, long-term use of the liver and kidneys.

The study is in the Helsinki Declaration and 265 29.08.1996 y.it was held in accordance with the moral standards established in the" principles of the legislation of the Republic of Uzbekistan on the protection of health of citizens".

In the examination, the CEC was introduced, which was determined by the method of Xaunsfild in Siemens Somatom Scope CEC, produced in Germany (Germany 2016). We measured the density of the lumbar spine and proximal femur based on the CEC test based on the Xaunsfield scale. 2016 year A). The time required for the study was 20 minutes.According

to the results of CEC, according to the recommendations of who (20016), T - criteria were evaluated, the results were evaluated as follows: normal - (+400) to (-1) bb (standard deviation) with T - criterion value, osteoporosis-to (+350) (+400) and osteoporosis - (+300) less than Huda.

Pain syndrome was assessed using questionnaire and according to data from pain syndrome classification.Pain syndrome in osteoporosis is characterized by a decrease in performance, increased fatigue, back pain, including after physical exertion, a feeling of heaviness among the buttocks, the need for rest in a calm lying position.There are volatile pains in the bones and joints, unstable, increasing with changes in weather, minimalertalabki hangover no more than 30 minutes, a decrease in the volume of movements.According to these symptoms, we compiled the criteria for the classification of pain syndrome.

Kaltsiy (sa) concentration in the hair of the investigated individuals was determined by atomic emission spectrometry and mass spectrometry with inductively linked argon plasma (AES-IBAP and MS-IBAP) at the biotic Medical Center (Buxoro) [2].Indicators of the concentration of chemical elements in the hair were compared with reference values [11]. It turned out that hair is more suitable tissue than blood or urine to study the balance of its elements.The mean value (M) and standard deviation (σ) of the variation range were calculated, 25 and 75 percentiles were used as scattering measures with abnormal distribution of parameters.The reliability of the differences was analyzed using Mann-Whitney's test for nonparametric values: the differences were found to be reliable at $P<0.05$ values.The resulting material was processed using MS Excel and statistics 8.0 software.

Research findings and discussion of them. In the treatment group of women of the age of Fertil (from 30 to 50 years), osteopenia-autologous changes in bone tissue, observed in 5 cases, which accounted for 11,2%.The comparison group did not have osteoporosis. Clinical manifestations in the form of 1-degree pain syndrome in healthy women were

observed in 9 cases, which accounted for 19,8% of cases.

Treatment of patients with breast cancer depends both on the stage and histological and immunogisto chemical properties of the tumor, the degree of malignancy.All 48 patients underwent surgical treatment, of which 8 (16.6%) underwent radical breast resection.18 (37.5%) patients underwent neoaduvant polycymia (NPKT) due to the spread of the process and the purpose of organ preservation surgery.39 (81.2%) APKT, 12 (25.0%) received light therapy. Hormone therapy was prescribed to 36 (75.0%) patients with breast cancer.

All patients with a diagnosis of breast cancer were examined before the appointment of a special treatment and six months after the treatment.In the analysis of 48 patients with breast cancer of the Fertil age group, pain syndrome before treatment of the underlying disease was detected in 6 (12.5%) cases.After 6 months of treatment for breast cancer, pain syndrome was detected in 39 (81.2%) cases: 18 - 1 degree, 16 - 2 degree, and in 2 cases-3 degree (figure). 1).1).Statistically significant difference between the appearance and intensification of pain syndrome before treatment for breast cancer and 6 months after treatment was obtained ($p<0.01$).
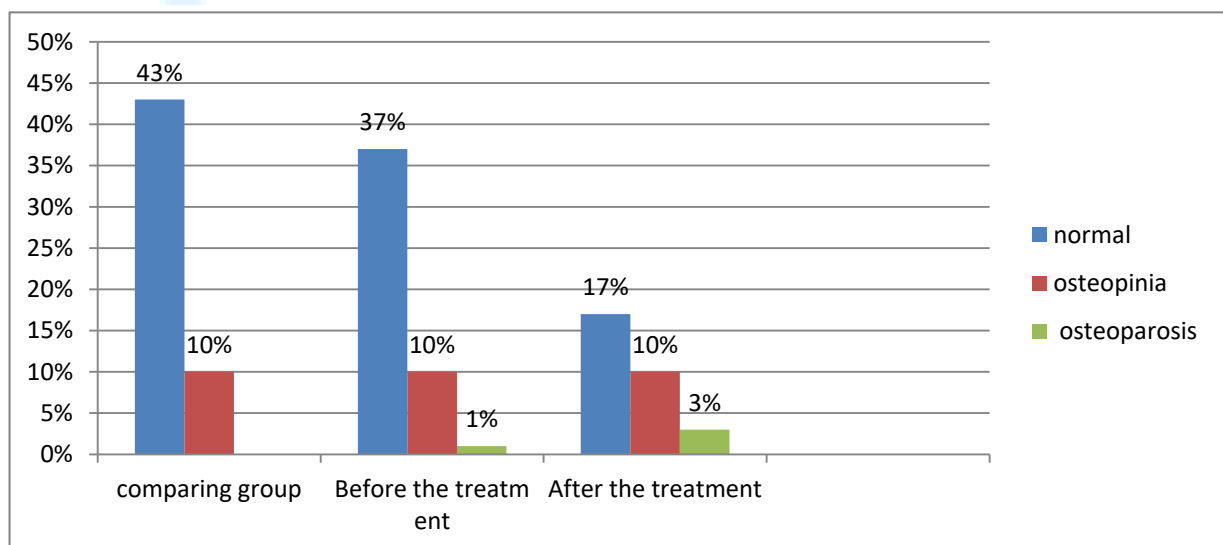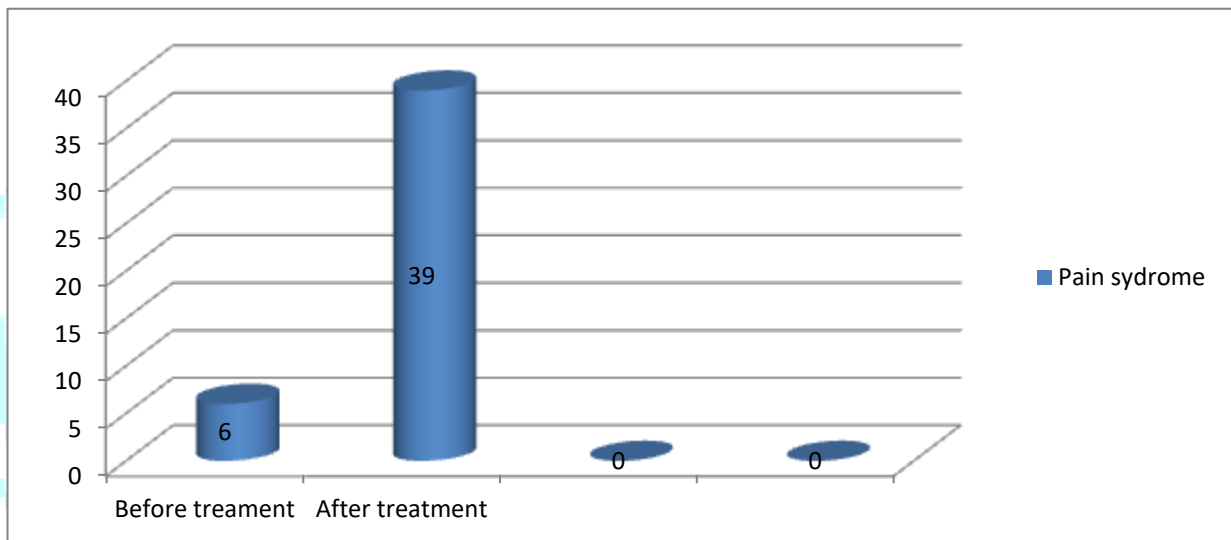
Picture. 2. Manifestations of osteoporosis and osteoporosis against the background of special treatment of breast cancer (absolute number and%)

In patients with breast cancer before treatment, there were 11 (23.4%) cases of symptoms of osteoporosis and osteoporosis, of which 1 had osteoporosis, and six months after treatment - 2 patients with osteoporosis (figure), of which 30 (63.8%) cases.

The average value of absolute smz indicators in women before treatment was -0.01+1.23 g / sm2, after 6 months of treatment, the average smz reached -0.85 + 1.24 g/sm2.Important statistical results were obtained in the determination of osteoporosis and osteopenia after special treatment of breast canceronida (p<0.001).

Against the background of special treatment, after 6 months, the number of cases of osteoporosis and osteopenia and (or) an increase in the pain syndrome in patients with breast cancer in the age of fertil significantly increases. The direct correlation between pain syndrome and the level of osteoporosis and osteoporosis before and after specificity was statistically confirmed.

Specific treatment by breast cancer during the osteoporosis and ostephenia patients with chronic pain. (i4%)

The concentration of chemical elements in the hair of the individuals investigated in both groups was within the range of physiologically acceptable values for healthy individuals of the respective age group [11].However, compared to the control group, women with breast cancer found significantly lower concentration of hair sa (p = 0.016). It has been proven that changes in the content of sa in the hair can also indicate osteoporosis [5]

It is noteworthy that almost half of women with breast cancer and a third of women who have been examined without breast cancer have been diagnosed with a violation of the sa supply.At the same time, the lack of different degrees of elements condition is characterized by the fact that 40 (38.8%) of patients with breast cancer and 12 (22.2)% of women with breast cancer load. Excess sa was found in 9 (8.8%)

women with breast cancer and 6 (11.1%) women without breast cancer (Table 2).The excessive content of sa in the hair, A.V. According to skalny, this characterizes the accelerated elimination of bioelement from the body and is actually a pre-failure stage.

Element	Women (n=101/49		
	Normal	1-2stage deficisit	3-4 stage deficisit
Ca	52,4/66,7	22,3/12,9	16,5/9,3

Note: Biological showes breast cancer and not breast cancer dideases.

The most significant (p<0.001) differences between women in the comparison group and women with breast cancer were associated with the main element of antioxidant protection of the human body - sa [1].

The results of the conducted studies show a high risk of developing tumor diseases in areas with low consumption of sa [13]. The provision of Sa element not only prevents certain types of cancer, but also prevents metastases in the observed cancer musculature.

When a patient with breast cancer takes the sa drug, the estrus receptor (ER-alpha) is inhibited. Sa is not only a preventive measure in women with a high risk of breast cancer , but is also one of the treatment options for combating cancer in women with breast cancer[3].

The lack of sa, the main microelement of antioxidant protection, was observed in both groups of women, but was found in many patients with breast cancer: less than half of women with breast cancer and 29 (53.7%) patients without breast cancer were adequately provided with the sa element (Table 2).

Conclusions

1. In 63.8% of cases of osteoporosis and osteopenia in patients with breast cancer of the age of Fertil.pain syndrome is detected in 76,6% of cases. This is statistically validated (R<0.01)

2. With the appearance and course of pain syndrome, there is a direct link between the level of osteoporosis and osteoporosis before and after special treatment (p <0.01).

3. Osteoporosis is often observed in patients with complex treatment with blocking ovarian function, that is, the onset of artificial menopause (R<0.01). These patients are recommended to perform osteodensitometry in order to timely diagnose osteoporosis.

4. it was noted that the level of kaltsium (R = 0,016) and selenium (R <0,001) was significantly lower than the level of qaragandasium (R = 0,016).

5. For the prevention and treatment of breast cancer, in addition to the generally accepted methods, it is necessary to optimize the supply of OSI to women with the help of the necessary drugs and food products enriched with these Bioelements.

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