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ART THERAPY OF CANCER PATIENTS IN THE CONTEXT OF ONCOLOGICAL REHABILITATION DURING THE COVID 19 PANDEMIC AND THE WAR IN UKRAINE

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After the diagnosis is made, a cancer patient goes through a long period of acceptance and awareness, which certainly leaves an imprint on his psycho-emotional state. And the emergence of another unexpected negative factor, like war in Ukraine and the COVID19 pandemic, multiplies the degree of depression, panic, despair, denial of the fact of the disease, and sometimes refusal of treatment. **Aim:** to assess the effectiveness of art therapy in complex antitumor treatment in patients with locally advanced or metastatic HER2-negative hormone-dependent breast cancer (HDBC), stimulation of patients' skills for unlimited creativity, an emotional outburst of negative energy. **Object and methods:** 125 patients with HDBC: 87 patients (69.6%) — metastatic cancer (of which, skeletal bone lesions — 59 (67.8%), lungs — 20 (22.9%), orbit — 1 (1.1%), liver — 2 (5.9%), ovaries — 2 (2.3%), peritoneal carcinoma — 4 (4.6%), ascites — 2 (2.3%)). 38 (30.4%) patients have locally advanced cancer. The patients studied the effectiveness of anticancer therapy: letrozole 2.5 mg per day daily + palbociclib 125 mg per day from 1 to 21 days daily against the background of art therapy (pictures "by numbers"). Patients independently chose drawings, colors, images, canvas sizes, and timeframes for completing the work, as well as pronounced their choice. **Results:** complex anti-tumor treatment (letrozole + palbociclib) against the background of art therapy made it possible to achieve an objective effect in 112 patients: 44 (35.2%) — CR (complete answer), 52 patients (41.6%) — PR answer, 17 patients (13.6%) — SD (stabilization of the process), progression of the process was registered in 12 patients (9.6%). Comparative analysis has shown that 74 (59.2%) chose drawings of flowers, 19 (15.2%) — landscapes, 10 (8.0%) — animals and 20 (16.0%) — others. The majority of patients (61.6%) chose a drawing in dark colors as their first work, and the subsequent ones were done with bright colors, which indicates an improvement in the psycho-emotional status, quality of life of patients against the background of art therapy and was associated with the disappearance of despondency and uncontrollable fear.

"For the sake of goodness and love, a person should not allow death to take over your thoughts..."

The full-scale war in our country has become, without exaggeration, the most difficult test in the history of its independent existence. The hostilities have affected all spheres of Ukrainian life, and the damage to Ukraine's infrastructure during the war has already amounted to billions of dollars. In February 2022, as a result of a full-scale invasion of the aggressor, a war broke out in Ukraine, the consequences of which are also reflected in the condition of cancer patients. Already now there is an increase in the incidence of cancer, the formation of forms of cancer resistant to treatment and the emergence of more aggressive variants of the course of the disease [1].

It is estimated that more than 10,000 Ukrainians with cancer are currently in war zones, fleeing the war or staying in refugee shelters across Europe. We are witnessing the horrors of this war, and at the same time, we, all over the world, are involved in many forms of practical help and remote support. Helping patients suffering from cancer and war, providing them with support to ease the double burden of suffering, must be part of this widespread initiative. It is important to remember that in such traumatic circumstances, when meeting basic physical needs is an absolute priority, we must also consider the psychosocial needs of people, especially if they are cancer patients. A patient battling cancer has the same needs as any other person, which underlines the importance of the psychosocial aspects of the individual.

2020 has become a test for all of us, as well as an occasion to find a way out of even the most absurd situation. How to continue special treatment for a cancer patient, adhering to the timing of the introduction of cytostatic and the continuity of care in a pandemic COVID-19? Cancer patients are at high risk for COVID-19 infection and need to continue anticancer therapy. Discontinuation of chemotherapy or targeted therapy, discontinuation of hormone therapy or immunotherapy — today, in quarantine, tomorrow — will reduce overall and relapse-free survival.

On March 13, 2020, the American Society of Oncologists ASCO published guidelines for the management of cancer patients in the context of the COVID-19 pandemic, according to which cancer patients at risk for severe COVID-19 [2] are: patients 65 years and older; patients with concomitant chronic diseases of the cardiopulmonary system; patients receiving chemotherapy; obese patients (BMI > 40); patients receiving immunosuppressive therapy; patients with decompensated conditions, such as diabetes. To reduce the risk of infection, it was recommended to reduce the number of visits to oncology hospitals. The recommended individual approach to each clinical case, change of treatment tactics should not significantly worsen the prognosis of the underlying disease. In some cases, refusing adjuvant chemotherapy for early breast cancer or rescheduling it may have a more favorable effect on prognosis than pandemic [3, 4].

Thus, currently, there are no absolute contraindications for a particular method of anticancer treatment, as well as clear recommendations for the sequence of their implementation [5]. Therefore, each specific clinical case must be considered individually, which more than ever fits into the concept of personalized treatment of cancer patients.

Over the past decades, the war on cancer has been the central idea behind cancer control and treatment tactics in many parts of the world. It is driving a shift from tumour-focused oncology to integrative oncology and a shift in focus from patients to survivors. And all of us, both individuals and communities, are realizing more and more clearly that this is a very individualized war. Over time, we have achieved important victories in the areas of prevention, early detection, diagnosis and innovative treatment of cancer, as well as quality of life for cancer patients. But what if you have to fight cancer, receive treatment and fight for your life in a real war with guns, bombs and human tragedies, suffering from war-related psychological trauma?

It is known that after the diagnosis of cancer, the patient goes through a long multi-stage period of acceptance and awareness, which certainly leaves a certain imprint on his psycho-emotional state and behavioral reactions. And the emergence of another unexpected negative factor, such as the COVID-19 pandemic, certainly increases the degree of depres-

sion, panic, despair, denial of illness, protest, and sometimes aggression.

In some cases, it was very difficult to persuade the patient to initiate anticancer treatment. All this led to the search for options to improve the quality of life of our patients in the context of anticancer treatment in global problems. And such a solution to the problem was for us and our patients the art therapy.

The term “art therapy” (literally: art therapy) was first used by artist Adrian Hill in 1938 to describe his work with tuberculosis patients in sanatoriums. These methods were used in the United States to work with children taken out of Nazi camps during World War II. At the beginning of its development, art therapy reflected the psychoanalytic views of Z. Freud and K.G. Jung, according to which the end product of the client’s artistic activity (whether drawing, sculpture, installation) expresses his unconscious mental processes [6]. Art therapy in the narrow sense of the word — drawing therapy, is based on fine arts, is popular for the psychological correction of neurotic and psychosomatic disorders, and expresses the emotional state of the painter [7].

Indications for art therapy: difficulties in emotional development, stress, depression, low mood, emotional instability, the impulsiveness of emotional reactions, experiencing emotional rejection by others, feelings of loneliness, interpersonal conflicts, dissatisfaction with family relationships, jealousy, anxiety, fears, phobias negative “I-concept”, low self-esteem [6].

All these manifestations, of course, can be seen in every cancer patient, especially — depression, emotional instability, low self-esteem, anxiety, fear, loneliness. Especially now, during the war, when all these feelings are experienced with redoubled force: the fear of the unknown and the fear of death not only from Cancer but also from COVID19 and results of war [8]. According to K. Rudestam, one of the main tasks of art therapy are: to give a socially acceptable way out of aggression and other negative feelings; facilitate the healing process as an auxiliary method and work out depressing thoughts and feelings.

Our work aimed to evaluate the effectiveness of art therapy in complex antitumor treatment in patients with locally or metastatic HER2-negative hormone-dependent breast cancer (HDBC), by stimulating patients’ skills to unlimited creativity, an emotional outburst of negative energy to maximize survival, when achieving satisfactory psycho-emotional status and quality of life.

OBJECT AND METHODS OF RESEARCH

From March 2020 to June 2023, we monitored 125 patients with HDBC. Tumor was common in all patients: in 87 patients (69.6%) — metastatic cancer (of which, skeletal bone lesions — 59 (67.8%), lungs — 20 (22.9%), orbit — 1 (1.1%), liver — 2 (5.9%), ovaries — 2 (2.3%), peritoneal carcinoma — 4 (4.6%),

ascites — 2 (2.3%)); 38 (30.4%) patients have locally advanced cancer. All patients underwent CT screening at the stage of examination and excluded brain damage. The mean age of patients was 57.2 years. The average length of time after the initial diagnosis before the progression of the process — 2.8 years. Due to many factors, including the COVID-19 pandemic, repeated biopsies to obtain IHC were not performed.

Taking into account the recommendations of the NCCN, patients were offered special treatment: letrozole 2.5 mg per day daily + palbociclib 125 mg per day from 1 to 21 days daily [3, 9]. This treatment regimen meets the requirements of today: it is highly effective and allows for continuous anticancer treatment in the

context of the COVID-19 pandemic. In addition, all measures were taken to reduce the risk of COVID-19 infection: patients received low-toxicity anticancer tablets at the place of residence, under the supervision of an oncologist online. Back in 2020, after the introduction of quarantine restrictions, we planned to assess the effect of special treatment every 3 months after the start of drugs, and then every next 3 months. One of the conditions in 2020 was to reduce the incidence, which means the removal of quarantine measures, which would allow patients to come to see a clinical oncologist and perform instrumental examinations.

In addition to the main method of treatment with anticancer drugs, during all courses of treatment, all patients were offered art therapy, namely daily painting of paintings “by numbers”. The choice of this option of art therapy was due, first of all, to the possibility of various manifestations of both hidden and overt emotions of patients.

We studied many individual and group therapies, including online therapy, consulted a psychologist, a specialist in the development of creative thinking and chose, in our opinion, the most optimal type of art therapy that reveals the inner world of each. We asked all patients to draw pictures “by numbers”. It is quite popular now and available, including online, a method of art therapy that does not require large material costs. At the same time, patients independently chose drawings, colors, images, canvas sizes and deadlines.

For example, we proposed to choose colors for art therapy, which in the opinion of the patient express his personality or character and create a composition with their help; choose colors that “neutralize” his negative experiences and use them to create an image. In addition, patients were asked not only to draw, but also to say: why did you choose bright colors or, conversely, what do the gloomy tones say? Because for this method of art therapy to work, it is necessary not only to fill the drawings with colors and shades, but also to think about the result [10–12].

RESULTS AND DISCUSSION

We supervised the patients during the 6th months after treatment. Complex antitumor treatment (letrozole + palbociclib) on the background of art therapy allowed to obtain an objective effect in 112 patients: 44 patients (35.2%) — CR (complete answer), 52 patients (41.6%) — PR answer, 17 patients (13.6%) — SD (stabilization of the process), progression of the process was registered in 12 patients (9.6%). All patients continued antitumor therapy on the background of art therapy with sequential staining of one picture after another, as the work progressed. We tried to analyze the choice of our patients in consultation with a psychotherapist. As a rule, when tired, people draw flowers (*Fig. 1A*); if you need to quickly get in shape and regain strength — paint the landscape; there is dissatisfaction with life — make a reproduction of the picture

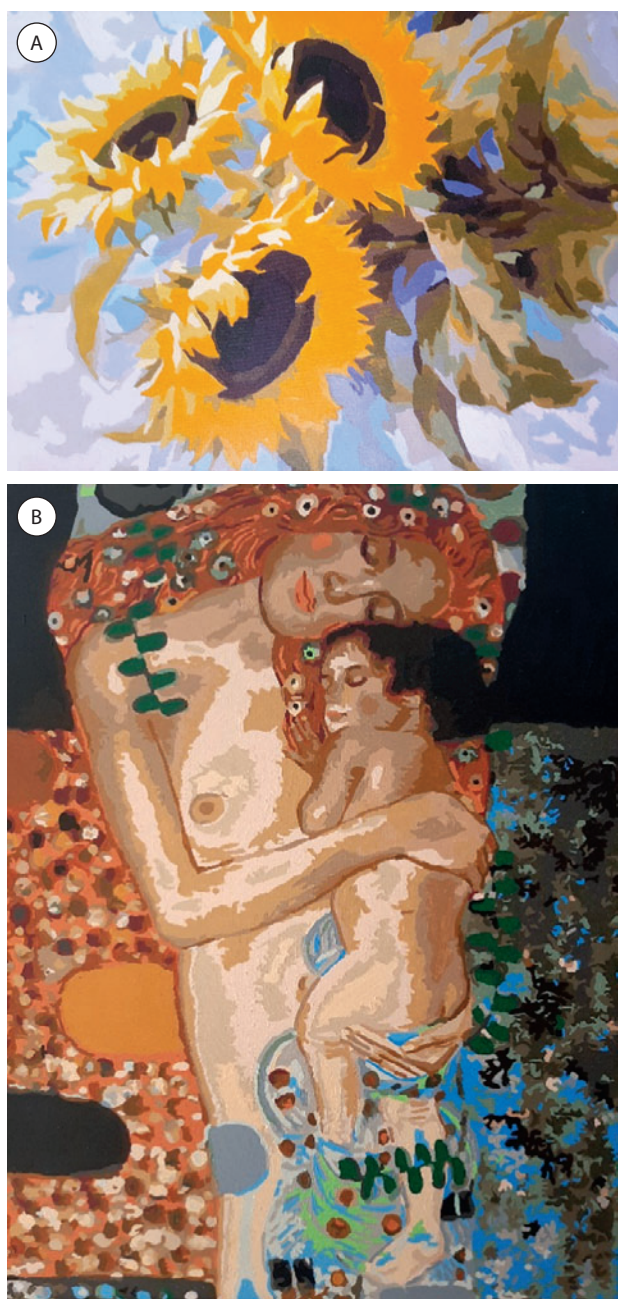


Fig. 1. Example of patient drawings of flowers (*A*) and oil painting reproduction (*B*)



Fig. 2. An example of changing the color scheme and theme of drawings on the background of art therapy

(Fig. 1B); there is despair — roads and paths are drawn. Among our patients, 74 (59.2%) chose drawings of flowers, 19 (15.2%) — landscapes, 10 (8.0%) — animals and 20 (16.0%) — others.

The color scheme chosen by the patient can also characterize his psycho-emotional state. So, as a rule, the majority of patients (61.6%) chose as the first work drawing in dark tones, and then, 2 or 3 works were executed with bright paints (Fig. 2). The patients themselves pointed out that the choice of drawing with a predominance of brown, black, burgundy, navy blue, they associated with despair, low mood, uncontrollable fear. And the gradual transition to bright colors indicates an improvement in psycho-emotional status, quality of life of patients on the background of art therapy and was associated with the disappearance of despair and uncontrollable fear.

Stimulation of cancer patients' skills to unlimited creativity, an emotional outburst of negative energy contributed to solving our tasks. At the same time, it becomes easier for a person, because he learns a new tool of self-expression, that goes beyond his capabilities. Any creativity gives a charge of energy — you write, draw or sculpt, you are free from negativity, you relieve tension, you enjoy the process [7]. The use of art therapy has many advantages over other methods. The first is the ease of use, available to everyone, regardless of age, gender, level of creativity, is there are almost no contraindications. Another advantage is that art therapy is a non-verbal method, and therefore is especially valuable for introverts or people who have difficulty expressing their own experiences.

CONCLUSIONS

1. In our opinion, the use of art therapy, namely painting “by numbers”, helps to improve the general condition of patients, namely to reduce stress and relieve feelings of helplessness. The moment of expressing their choices and emotions that arise during the entire period of drawing, which is reflected in their

work, allows patients to become aware of the experience through coloring.

2. The use of combination anticancer therapy with palbociclib + letrozole on the background of art therapy (picture “by numbers”) allows achieving an objective positive result in 90.4% (113 patients) of patients, which opens great prospects for this method of treatment of cancer patients in conditions of long-term stressful influences (pandemics, war, etc.).

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АРТ-ТЕРАПІЯ ОНКОХВОРИХ В КОНТЕКСТІ ОНКОЛОГІЧНОЇ РЕАБІЛІТАЦІЇ ПІД ЧАС ПАНДЕМІЇ COVID-19 ТА ВІЙНИ В УКРАЇНІ

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Резюме. Після встановлення діагнозу онкохворий проходить тривалий період прийняття та усвідомлення, що, безумовно, накладає відбиток на його психоемоційний стан. А поява ще одного несподіваного негативного фактору, як війна в Україні та пандемія COVID19, примножує градус депресії, паніки, відчаю, заперечення факту хвороби, а іноді і відмову від лікування. **Мета:** оцінити ефективність арт-терапії в комплексному протипухлинному лікуванні хворих на місцево-поширений або метастатичний HER2-негативний гормонозалежний рак молочної залози (РМЗ), стимулювання у пацієнток навичок до необмеженої творчості, емоційного виплеску позитивної енергії. **Об'єкт і методи:** 125 хворих на РМЗ: 87 пацієнток (69,6%) — метастатичний рак (з них ураженням кісток скелета — 59 (67,8%), легень — 20 (22,9%), орбіти — 1 (1,1%), печінки — 2 (5,9%), яєчників — 2 (2,3%), карциноматоз очеревини — 4 (4,6%), асцит — 2 (2,3%)). 38 (30,4%) пацієнток мали місцево-поширений рак. Пацієнтки одержували протипухлинну терапію: летрозол 2,5 мг/добу щоденно + палбоцикліб 125 мг/добу з 1-го по 21-й день

щоденно на фоні арт-терапії (картини “за номерами”), одним із завданням якої було покращення якості життя. Пацієнти самостійно обирали малюнки, кольори, образи, розміри полотна та терміни виконання робіт, а також озвучували свій вибір. **Результати:** комплексне протипухлинне лікування (летрозол + палбоцикліб) на фоні арт-терапії дозволило досягти об'єктивного ефекту у 112 хворих: 44 (35,2%) — повна відповідь, 52 пацієнти (41,6%) — відповідь, 17 пацієнтів (13,6%) — стабілізація процесу, прогресування процесу зареєстровано у 12 пацієнтів (9,6%). Порівняльний аналіз також показав, що 74 (59,2%) обрали малюнки квітів, 19 (15,2%) — пейзажі, 10 (8,0%) — тварин та 20 (16,0%) — інші. Більшість пацієнтів (61,6%) першою роботою обрали малюнок у темних тонах, а наступні виконували яскравими кольорами, що свідчить про покращення психоемоційного стану, якості життя пацієнтів на фоні арт-терапії та було пов'язано зі зникненням зневіри та неконтрольованого страху.

Ключові слова: арт-терапія, рак молочної залози, якість життя, COVID-19, війна в Україні, онкологічна реабілітація.

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