



## ART THERAPY OF CANCER PATIENTS IN THE CONTEXT OF THE COVID19 PANDEMIC AND WAR IN UKRAINE

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

**Abstract.** 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 and the COVID19 pandemic, multiplies the degree of depression, panic, despair, denial of the fact of the disease, and sometimes refusal of treatment.

**Goal and tasks.** To assess the effectiveness of art therapy in complex antitumor treatment in patients with locally advanced or metastatic HER2-negative hormone-dependent breast cancer (HRCC), stimulation of patients' skills for unlimited creativity, an emotional outburst of negative energy.

**Materials and methods.** 25 patients with thyroid cancer: 17 (68%) - metastatic cancer (of which, damage to the bones of the skeleton - 13 (76.4%), lungs - 4 (23.5%), orbit - 1 (5.9%), liver - 1 (5.9%), ovaries - 2 (11.8%), peritoneal carcinomatosis - 3 (17.6%), ascites - 2 (11.8%). 8 (32%) 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 antitumor treatment (letrozole + palbociclib) against the background of art therapy made it possible to achieve an objective effect in 21 patients (2 (9.5%) - CR, 12 (57.1%) - PR, 7 (33.3%) - SD), progression of the process - 4 (16%). 14 patients chose flower drawings (56%), 4 - landscapes (16%), 3 - animals (12%) and 4 - other (16%). The majority of patients (60%) 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 dependency and uncontrollable fear.

**Keywords:** art-therapy, breast cancer, quality of life, COVID-19, war in Ukraine

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 [2].

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 cytostatics 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 [6, 12] 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. In this regard, all cancer patients should be divided into three categories [9, 10]:

1. Patients who require immediate initiation of cancer treatment or continued drug treatment because the risk of progression or death from the underlying disease is higher than the risk of SARS-CoV-2 infection.

2. Patients who may be delayed in initiating therapy (for example, patients who have already received multiple lines of palliative chemotherapy due to the progression of the cancer process and have no symptoms of the disease).

3. Patients under observation without signs of disease and/or progression, who should cancel visits in the next 2-3 months and/or conduct them remotely.

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.

The most famous international professional societies of oncologists (ASCO, ESMO, NCCN) offered clinical oncologists around the world general recommendations for changing the tactics of treatment of cancer patients, aimed at minimizing social contacts and visits to medical institutions [11, 12, 13]:

- refusal of deliberately toxic chemotherapy, especially in patients with comorbidities who are at risk for severe COVID-19;
- when choosing therapy, prefer drugs without potential pulmonary toxicity (for example, replacement of bleomycin with ifosfamide in the presence of germ cell tumors, the use of sunitinib instead of everolimus in the presence of neuroendocrine tumors);
- observation or maintenance therapy when remission is achieved, provided that reducing the number of treatment cycles will not lead to worsening of long-term results;
- transfer of patients from intravenous regimens to oral treatment regimens, if it does not worsen the course of the cancer process;
- in some cases it is possible to postpone the next course for 2 weeks, increase the intervals between courses of treatment;
- refusal (where possible) of weekly treatment in favor of 2-3 weeks;
- the decision to cancel and/or modify the treatment regimen should take into



account the indications, risks, and expected benefits, the decisions made should be formalized by the decision of the oncology council or medical commission;

- expanding the indications for the prophylactic use of G-CSF for patients at risk of febrile neutropenia more than 10%, consideration of the appointment of prophylactic antibiotic therapy.
- providing the patient with instructions in case of side effects, indicating drugs and modes of their use to relieve side effects.

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 [8]. Therefore, each specific clinical case must be considered individually, which more than ever fits into the concept of personalized treatment of cancer patients.

**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.

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

In some cases, it was very difficult to persuade the patient, despite the presence of incurable cancer, age, comorbidity (diabetes mellitus, for example), ie at high risk of infection, to initiate anticancer treatment, despite daily COVID-19 statistics, frightening tape news, the growing incidence in China, Italy, Spain, France, and the United States. All this led to the search for options to improve the quality of life of our patients in the context of anticancer treatment in a global problem. And such a solution to the problem was for us and our patients the art therapy.

**Materials and methods.** From March 2020 to June 2021, we monitored 25 patients with HDBC. Tumor was common in all patients: in 17 patients (68%) - metastatic cancer (of which, skeletal bone lesions - 13 (76.4%), lungs - 4 (23.5%), orbit - 1 (5, 9%), liver - 1 (5.9%), ovaries - 2 (11.8%), peritoneal carcinoma - 3 (17.6%), ascites - 2 (11.8%). 8 (32%) 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 + palbocyclib 125 mg per day from 1 to 21 days daily [9, 13]. 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, 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 [1, 5].

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 [3].

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 [4].

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 [3].

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 COVID19 pandemic, 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 [7].



According to K. Rudestam, one of the main tasks of art therapy [2] 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.

Stimulation of cancer patients' skills to unlimited creativity, an emotional outburst of negative energy has become one of 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 [4]. 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, ie 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.

**Results.** Complex antitumor treatment (letrozole + palbocyclib) on the background of art therapy allowed to obtain an objective effect in 21 patients: 2 patients (9.5%) - CR (complete answer), 12 patients (57.1%) - PR answer), 7 patients (33.3%) - SD (stabilization of the process), progression of the process was registered in 4 patients (16%). 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. 1); 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. 2); there is despair - roads and paths are drawn. Among our patients, 14 (56%) chose drawings of flowers, 4 (16%) - landscapes, 3 (12%) - animals and 4 (16%) - others.



**Fig. 1 Example of patient drawings Fig. 2 Example of patient drawings (flowers) (oil painting reproduction)**



The color scheme chosen by the patient can also characterize his psycho-emotional state. So, as a rule, the majority of patients (60%) chose as the first work drawing in dark tones, and then, 2 or 3 works were executed with bright paints (fig. 3). 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.



**Fig. 3. An example of changing the color scheme and theme of drawings on the background of art therapy**

Thus, based on the results of the study, the following **conclusions were made:**

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 84% (21 patients) of patients, which opens great prospects for this method of treatment of cancer patients in the ongoing pandemic COVID-19 and war.

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