

Quality of life problems in gynecological cancer patients

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Abstract

Due to improvements in short- and long-term clinical outcomes a study of quality of life is one of the most promising trends in oncology today. This review analyzes the published literature on problems dealing with quality of life of patients with gynecological cancer. Data on quality of life with respect to the extent of anticancer treatment as well as psychological and social aspects are presented. The relationship between quality of life and survival has been estimated.

Key words: quality of life; gynecological cancer; overall and disease-free survival.

The use of modern methods of combined treatment in patients with malignant tumors of female reproductive system allows to achieve such satisfactory oncological results as increase of recurring and general survival, increase of median up to progression, reduction of risk of development of remote metastases. If morbidity, mortality, number of complications are objective indicators of health and treatment results, the subjective indicator of the patient's perception of his own well-being is the quality of life [22, 39, 45, 46, 56]. In 1999, a conference of the National Cancer Institute (NCI) and the American Society of Clinical Oncology (ASCO) determined that quality of life is the second most important criterion for assessing the results of antitumor therapy after survival and is more important than the primary tumor response [4, 8, 12, 36, 43].

Since the early 90s, the number of publications devoted to the study of quality of life has increased by 30-40% annually. To date, there are more than 100,000 publications on quality of life assessment in various fields of medicine [4, 9, 13, 54, 55]. The majority of publications refer to cancer and cardiovascular diseases [11, 21, 30, 47].

The analysis of materials of domestic and foreign literature testifies to the fact that at present the questions of quality of life in cancer gynecological patients after radical treatment, in particular, in patients with malignant tumors of cervical and uterine bodies, remain practically unexplored [20]. There are single publications on the reduction of quality of life after the antitumor treatment of cancer of the body and cervix [31, 32, 49]. There are research results that suggest that CMD patients have lower quality of life compared to endometrial and ovarian cancer patients due to their younger age category [33].

Not only the number of years a patient has lived but also the way she has lived them becomes relevant due to the increased survival period [21, 40, 44, 58]. Factors affecting the quality of life of oncologic patients are both the oncological process itself (stage, symptomatology, complications) and complications of treatment (surgery, complications of chemotherapy and radiation therapy) [48, 57].

Quality of life and scope of antitumor treatment

In one of the few Russian studies, the quality of life (QoL) of cervical cancer patients who have received surgical, combined treatment and only radiation treatment is examined from a comparative perspective. It was found that the baseline QoL was higher in the surgical treatment group, while the worst QoL was in the radiotherapy group (72.4 and 70.7 points, respectively), which is associated with the worst indicators of "physical well-being" (18.3 and 16.0 points, respectively). In 3 months after the completion of specific treatment the QoL level in the groups of surgical and combined therapy not only reached the initial figures, but also exceeded them with a further tendency to increase (by 18 months - 88 points), while in the group of radiation treatment the figures reached the initial level only by the 6th month (by 18 months - 76 points), which is probably due to the developed complications after radiation treatment. Urogenital dysfunctions were more frequent, especially pronounced in the group of patients with radiation therapy, which forced 55% of patients after 3-5 years to give up sexual life [17].

Dzenita Ljuca, Goran Marosevic (2009) was studied in a comparative aspect of QoL in patients with local disseminated cervical cancer (LDCC) before and after chemo-ray treatment (CRT). Patients were treated with Combined Radiation Therapy (CRT) on a radical programme with a weekly dose of 40 mg/m² of cisplatin. A repeat skin test was conducted

12 months after the treatment was completed. Women with LDCC and retained cognitive function were included in the study. QoL was found to be better after CRT. Thus, the overall health status was 33 vs. 66 scores. Statistically significant were also differences in functional scales: emotional functioning 42 vs. 92, role-playing - 34 vs. 84, the highest indicators of social functioning - 84 vs. 100. After CRT the symptomatic scales decreased: pain from 33 to 16, fatigue from 44 to 13. 9 of 19 patients had no sexual relations either before or after treatment [50].

Mental components of subjective QoL in women with postovario-ectomic syndrome after various amounts of antitumor treatment were studied in the scientific work of L.V. Pokul (2010). Peculiarities of subjective skin in patients with cervical and uterine cancer who received surgical treatment (1 group), combined (2 group) and combined radiation therapy (3 group) were studied. The comparison group included patients with benign genital tumors after surgical treatment in the volume of total hysterectomy. All postovariotomy patients were found to be subdepressed and depressed (61.9%). Their social adaptation is achieved mainly through increased personal lability (43.4%). Patients of group 2 (combined treatment) were found to be most susceptible to high personal anxiety conditions: 77.1% ($p \leq 0,001$). The least expressed indicators of personal anxiety were in the group of patients who received only radiation treatment (42,7%). In the same group the lowest proportion of patients experiencing true depression was revealed: the level of "without depression" was diagnosed in 26.5% of the interviewed patients. In the same group of patients, the highest stability of social behavior was registered [15].

Conclusions about the remote efficacy of radiation, surgical and combined therapy are most often based on the analysis of the number of complications and mortality rate. However, these objective criteria of health assessment and treatment results do not always provide an opportunity to comprehensively assess the subjective state of human health, which is often more complete and accurate than an objective medical assessment. It is subjective indicators that reflect a patient's perception of the degree of his or her own well-being - quality of life [34]. Rational treatment, which eliminates symptoms of the disease and increases the functionality of the patient's body, most often increases the body's calorific value. At the same time, treatment may be an unfavorable, decreasing factor [24, 26].

In the study carried out by E.A. Ulrich in the assessment of QoL in patients with body and cervical cancer of stages I-II, there is a negative dynamics of QoL in all areas except for emotional ones, which is associated with the emerging hope for recovery. After radical surgical and combined methods of treatment, patients with cervical cancer recover by the 3rd

month, after combined radiation therapy only by the 6th month, which is due to complications of the treatment [21]. The data of the foreign literature show similar results, testifying that in the patients with cervical cancer after the performed treatment there is a reliable decrease of the indices of emotional, social functioning and general health level [27, 45, 60].

A comprehensive assessment of QoL 99 patients with uterine cancer who were treated at the Leningrad Cancer Dispensary's oncological department showed that patients with endometrial cancer have a lower quality of life due to the social, family, functional and emotional spheres, which may probably be due to an older age category of patients and the presence of accompanying somatic pathology. Diabetes mellitus and obesity have the most significant impact on reducing QoL. The authors of the study proved that patients who received combined treatment (surgery and radiotherapy) had the worst FG scores at all stages of the study compared to patients who underwent only surgery.

Most patients with uterine cancer (90.9%) had high levels of reactive anxiety at the time of diagnosis. Several types of personality were identified from the study, which have a significant impact on levels of anxiety and the dynamics of quality of life indicators. The levels of anxiety are higher among patients with hypochondriac and paranoid personality types ($p < 0.05$). During the observation a decrease of reactive anxiety level was registered in all patients ($p < 0.05$). The least pronounced dynamics was registered in patients with hysteroid personality type. It was shown that the most important factors negatively influencing the dynamics of quality of life in uterine cancer patients are personality type, age of patients and method of treatment ($p < 0.05$) [18, 19].

One of the most frequently occurring malignant neoplasms of female genitalia is ovarian cancer, which peaks in older age groups. The problem of studying the quality of life of such patients both during treatment and after its completion is relevant. E. M. Bogdanova with co-authors studied QoL patients with ovarian cancer and showed that patients over 70 years of age have lower QoL rates compared to those in younger age groups (50-69 years), with the most pronounced differences in the scales of physical and social and family well-being. A decrease in quality of life was also observed at 6 months from the beginning of therapy, which confirms the importance of not only well chosen and effective antitumor therapy, but also the importance of psychological support at all stages of treatment [5].

Main components of quality of life in oncogynecological patients

The main components of QoL for any cancer patient are physical/functional scales (activity, general condition, appetite, sleep, endurance/fatigue, symptoms of the underlying disease, complications of the treatment). For women with malignant neoplasms the priority

components are demographic (age, childbearing function), social (labor, family relations, sexuality), psychological/cognitive (anxiety, depression, optimism) scales [41]. Not only do cancer patients lose health per se. Loss of a psychologically significant organ (breast, uterus, etc.) in the process of surgical intervention itself is a serious injury [6]. Among the unfavorable factors complicating the therapy process and negatively affecting the manifestations and outcome of the tumor process is the formation of neuro-psychiatric disorders in cancer patients at the stages of special treatment. In the studied literature 3 syndromes are distinguished in cancer patients at the stages of special antitumor treatment: anxious-depressive (47,5%), depressive (24,5%), subdepressive (28%). At the palliative care stages, in addition to depressive (35.3%) and anxious-depressive (16.7%) syndromes, there are also depressive hypochondriac (31.4%), dysphoric (9.8%) and apathetic (6.8%) syndromes [10]. Several groups of factors take part in the formation of neuropsychiatric disorders: somatic state of a patient at the moment of oncological disease occurrence and its changes in this connection; extraordinary force and duration of action of psychotraumatic influence of the arisen oncological disease on a patient personality [16]. The literature data indicate the expressed changes in psycho-emotional sphere of women suffering from cancer. Thus, more than half of the patients (70%) feel alone. For patients, cancer is associated with a crash of life plans - 34%, death - 30%, pain - 31%, and persistent treatment - 38%. After radical treatment of genital and breast cancer 42% of respondents noted increased irritability, feelings of anger, 46.5% - tearfulness and resentment, in 15.5% apathy and indifference to everything is noted. Only 30% of patients try not to think about the disease [3]. As a result of a study comparing QoL parameters in patients with oncological pathology and in patients diagnosed with uterine myoma, it was found that oncological pathology dramatically deforms the psycho-emotional state of women. In case of benign pathology the social sphere of personality suffers mainly, in case of malignant process - physical components of quality of life - health and financial status (1). E. L. McGarvey et al. focus on the psycho-emotional state of patients with oncopathology, where therapeutic effects are associated with changes in appearance, and recommend that personalized psychotherapeutic sessions aimed at self-acceptance and overcoming distress be obligatory [51].

Studies indicate that the problems of cancer patients are related to social status rather than somatica, which indicates their hyper-socialization and the need for socio-psychological rehabilitation [14]. Physical and psycho-emotional disorders of oncological patients caused by the fact of severe disease and modern methods of radical treatment of malignant neoplasms require a broader approach to solving the problems arising in this case.

Climactic syndrome and quality of life

It has been established that more than 90% of oncogynecological patients of reproductive age suffer from symptoms of ovarian function loss after treatment. In addition to psycho-emotional state, volume of antitumor treatment, adverse reactions and complications after treatment, the severity of menopausal syndrome is a factor having a significant impact on the patient's skin [25, 29]. When studying the peculiarities of the postovario-ectomic syndrome course in patients with cervical and uterine body cancer of reproductive age after antitumor treatment, a decrease in quality of life indicators, such as the general level of health, the level of physical, emotional and social functioning, is observed in comparison with patients of peri- and postmenopausal age, who did not have significant dynamics of these indicators, which is connected with the development of menopause induced in young patients after antitumor treatment [25, 29].

Artificial (induced) menopause develops not only in the surgical stage of combined treatment for gynecological cancer, but also in radiation and chemotherapy. Small pelvis radiotherapy in a dose of 15-20 Gr in women of reproductive age causes the development of iatrogenic induced menopause, and the severity of menopausal symptoms corresponds to that in surgical menopause [37].

Ionizing radiation causes death of primordial follicles. The more intense the radiation, the higher the proportion of dead oocytes. The older the age, the more dramatic the radiation effects. Sterilization occurs at high doses of radiation, and premature menopause after several years at medium doses. The effect of radiation therapy on ovulatory and hormone-producing ovarian function occurs at already minimal doses. Irradiation of inguinal and iliac areas in women causes amenorrhea in almost 100% of cases. Irradiation of paraaortical and inguinal lymph nodes also causes menstrual cycle disorders, but much less frequently. The effect of radiation therapy on the follicular apparatus is dose-dependent [23]. In most cases, the use of a combination of chemopreparations is shown in the treatment of oncological diseases, which is dictated by increased efficiency of exposure, as well as reduced resistance to chemopreparations in the future. At the same time, the toxicity of combined treatment is also increasing [2, 7]. Thus, treatment of oncological diseases in women of reproductive age can often lead to either sterilization, or a decrease in the ovarian reserve and premature menopause in the future. The outcome largely depends on the age of the patient and her ovarian reserve before treatment, the type of therapy performed, the chosen treatment regimens (radiation doses and cytostatics), as well as the localization and prevalence of the tumor (42, 53). Preservation of menstrual function after chemotherapy does not mean that the

ovaries remained intact, as partial loss of the reserve of primordial follicles may lead to early menopause as a result of delayed response to treatment [52]. Restoration of the normal menstrual cycle after PCT occurs in 70% of women under 20 and in 20% of women over 30 (23).

Patients with gynecological cancer of reproductive age after radical treatment in most cases seek to maintain their previous lifestyle, social status, and work activity [28]. It has been shown that the most significant changes take place in the labor sphere. Thus, due to the age 50.8% of the studied patients stopped working before the beginning of the disease, 21.3% moved to a lighter job or work in the same place, 19.3% quit their jobs due to disability, and another 3.7% were unable to work in the same place [14].

Process stage, survival rates and quality of life

In comparative assessment of quality of life in patients with early stages of CC and local prevalent cervical cancer, literature data indicate lower quality of life on all scales in patients with common forms of disease, higher levels of anxiety (8.6% vs. 27.6% in IRMS) [38].

F. H. Vaz et al. reported no significant difference in QoL rates in LDCC patients treated with CRT and those treated for CC in their study. Both general health status and functional scales were assessed. It was found out that the general health status of LDCC patients was slightly lower than that of the patients with CRT (77,98 vs. 79,65), which is not reliable. No difference was noted in functional scales [59].

D.M. Chase et al. studied the relationship between general, non-recidivocal survival and QoL in 991 LDCC patients. The physical, emotional, social scales were assessed. It was found that physical condition of patients directly correlated with general survival indices and was one of the prognostic factors [35].

All above mentioned testifies to the fact that "cancerous disease" is the result of biopsychosocial conflict in an organism, therefore it is necessary to consider the complex of biological, psychological and social reasons underlying it [1].

Thus, the QoL problem requires further in-depth research. There is a lack of information on comparing QoL and clinical and functional data at the pre-, in- and post-inatal stages of the disease. Insufficient information about changes in QoL at the stages of polychemotherapy, radiation therapy against the background of developed complications. Therefore, the study of Dermal skin in gynecological cancer patients as a criterion of the effectiveness of antitumor treatment and for the development of appropriate rehabilitation measures seems to be relevant and requires an individual approach to each patient.

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