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Staged treatment of ovarian cancer in a patient: Therapeutic strategy and outcomes

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Abstract. Epithelial ovarian cancer remains one of the most aggressive gynaecological malignancies, which in most cases is diagnosed at advanced stages. The aim of the study was to present a staged treatment of a patient with advanced high-grade serous ovarian carcinoma, demonstrating the value of multimodal diagnostics, laparoscopic determination of the peritoneal carcinomatosis index, assessment of morphological response, and integrated chemo-surgical tactics in accordance with the ESGO/ESMO 2023 recommendations. A 45-year-old patient with bilateral ovarian lesions, ascites, and a high carcinomatosis index (24) underwent a comprehensive examination that included ultrasound, computed tomography, magnetic resonance imaging, endoscopic methods, laparoscopy with biopsy, and in-depth morphological analysis (histology, immunohistochemistry, assessment of Ki-67, estrogen receptor expression, and angiogenic markers). Pathohistological examination demonstrated a high degree of therapeutic pathomorphosis: a sharp decrease in Ki-67 (up to 2-5%), single tumour cells against a background of pronounced fibrosis, a decrease in microvascular density and the presence of xanthoma cells in areas of previous necrosis. Postoperative adjuvant treatment provided a stable response without signs of progression. The treatment results demonstrated the effectiveness of a staged treatment strategy for advanced ovarian cancer, which combined laparoscopic assessment of resectability, neoadjuvant polychemotherapy, interval cytoreduction and morphological verification of the response. The results obtained confirmed the high prognostic informativeness of the carcinomatosis index, Ki-67 and morphological markers of regression. The findings of the work can be used by gynaecological oncologists, chemotherapists, and pathologists in specialised oncology and university clinics when planning and assessing the effectiveness of staged treatment of advanced epithelial ovarian cancer

Keywords: neoadjuvant chemotherapy; cytoreduction; peritoneal carcinomatosis; adenocarcinoma; paclitaxel; carboplatin

INTRODUCTION

Ovarian cancer remains one of the most aggressive oncogynaecological diseases, occupying a leading place among the causes of cancer mortality in women. As stated by G. Caruso *et al*. [1], it is the most lethal gynaecological cancer,

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and the average age of diagnosis in developed countries is about 63 years. The prevalence and mortality from ovarian cancer traditionally remain higher in highly developed regions, which partly reflects the age structure of the population and the characteristics of cancer registration. Meanwhile, under the epidemiological analysis summarised by P. Gaona-Luviano *et al*. [2], during 2015-2025 in Western Europe and North America, there was a tendency to stabilise or moderately decrease in standardised morbidity and mortality rates. Despite this, the overall mortality rate remains significant and on average corresponds to approximately 3.5-4.0 cases per 100,000 women, which keeps ovarian cancer among the leading causes of death from cancer in women. Along with epidemiological features, the role of hereditary factors in the pathogenesis of ovarian cancer is gaining increasing attention.

As noted by U.M. Zamwar & A.P. Anjankar [3], more than 21 thousand new cases of ovarian cancer are registered annually, which is approximately 1.2% of all malignant neoplasms in women. The authors emphasised a sharp decrease in 5-year survival from 91.8% in the case of local process to 29.7% in the case of metastatic lesion, which once again confirmed the critical role of timely diagnosis. The authors also stated that up to 90% of carcinomas are epithelial, and the serous subtype dominates the structure of the disease. Clinical outcomes in ovarian cancer largely depend on the stage and biological characteristics of the tumour. S. Nag *et al*. [4] pointed out that despite the progress of surgical approaches and the development of supportive therapy, 5-year survival remains below 50%. The authors explained this by a combination of factors: late detection, chemoresistance and high recurrence rate, which significantly complicate the management of such patients. In turn, A.T. Ali *et al*. [5] highlighted the age-related characteristics of survival, stating that women younger than the average age of diagnosis have better long-term results, which determines the importance of taking into account the age factor in clinical decisions. Morphological and pathogenetic differences are no less significant. In the work, L. Zhou *et al.* [6] demonstrated that endometrioid and clear cell histotypes of ovarian cancer have different clinicopathological characteristics and are often associated with endometriosis. The researchers proved that patients with endometriosis more often have concomitant endometrial lesions and hormone receptor-positive tumours. The authors also indicated a worsening prognosis in patients with extensive disease and concomitant endometriosis, which requires special vigilance when interpreting pathological material.

In addition to pathomorphological features, therapeutic approaches play a major role. The standard of first-line treatment has remained unchanged for many years. V. Tavares *et al*. [7] put an emphasis on the fact that the primary strategy in most cases is cytoreductive surgery followed by platinum-containing chemotherapy in combination with taxanes for six cycles. The authors noted that the sequence from surgery to chemotherapy is a key factor in long-term disease control. However, the treatment strategy is significantly stage-dependent. In accordance with the recommendations of the European Society of Gynaecologic Oncology (ESMO), A. González-Martín *et al*. [8] pointed out that chemotherapy may not be indicated in patients with early stages and low-grade malignancy, which emphasises the importance of accurate histopathological assessment. For advanced cases, when complete tumour removal is not possible, J.S. Berek *et al*. [9] proved that the use of neoadjuvant chemotherapy followed by interval cytoreduction is a reasonable alternative that allows reducing the volume of the tumour mass and increasing the effectiveness of further treatment. Although the role of radiotherapy in ovarian cancer is limited, G. Macchia *et al*. [10] noted that its use remains critical in palliative situations, especially in the control of local symptoms, when systemic therapy is exhausted or insufficiently effective. The peculiarities of the course, prevalence, and difficulties of early detection of ovarian cancer are also characteristic of Ukraine. R.A. Chyzhma *et al.* [11] noted that the disease is most often registered in the age group of 60-79 years, which correlates with world trends. The histological structure is also similar: about 91% of neoplasms are epithelial-stromal tumours, mainly serous adenocarcinomas (approximately 75%). At the same time, almost half of the cases are diagnosed already at stage III, which indicates problems of early diagnosis and limited vigilance regarding early symptoms.

A literature review demonstrated that, despite the presence of clear international recommendations, the actual clinical pathways of patients with ovarian cancer differ significantly. Such differences are due to the initial stage of the process, the extent of peritoneal involvement, the carcinomatosis index, the histological variant, the degree of malignancy, the general somatic condition of the patient, as well as the nature of the response to neoadjuvant chemotherapy. Special attention is required in cases where primary surgery is impossible due to a large tumour mass or a high Peritoneal Cancer Index (PCI), which requires neoadjuvant polychemotherapy (NAPHT) and further assessment of the possibility of interval cytoreduction. It is such clinical situations that allow tracing how the theoretical principles of evidence-based medicine are applied in real practice – from the moment of initial tumour detection, PCI determination and morphological verification to the assessment of pathomorphosis and decision-making regarding further treatment strategy. The aim of the work was to provide a detailed explanation of the sequence of treatment decisions, the validity in accordance with modern evidence-based approaches, and to demonstrate the effectiveness of staged treatment in a patient with a complex and widespread tumour process.

MATERIALS AND METHODS

As part of the preparation of the clinical observation, an analysis of current global and national epidemiological data on the incidence, mortality, and survival rates of ovarian cancer for the period 2020-2025 was conducted. For this purpose, generalised data from international review publications, materials from population-based oncology registries, as well as official statistics from the National Cancer Registry of Ukraine [12] were used. The information obtained was used to contextualise the case, compare the individual course of the disease with modern epidemiological trends, and justify the choice of a staged multimodal treatment strategy. The study was conducted at the clinical base of Dnipro State Medical University in accordance with the principles of good clinical practice and the WMA

Declaration of Helsinki [13]. The treatment strategy was determined at a meeting of the multidisciplinary oncology committee on 2024 June 24, taking into account the patient's clinical condition. When making its clinical decision, the commission was guided by the current regulatory framework of Ukraine, in particular Order No. 845 of the Ministry of Health of Ukraine [14], which regulates the application of clinical guidelines and standards of medical care. The treatment regimen used was not prescribed as part of a clinical trial, but as individualized antitumor therapy in accordance with the principles of evidence-based medicine, international clinical guidelines, and the current regulatory framework of Ukraine. The patient gave written informed consent for the use of clinical, radiological, and morphological data for scientific purposes with a guarantee of confidentiality and anonymity.

The assessment of the effectiveness of the staged treatment tactics was based on a set of radiological response criteria, PCI dynamics, intraoperative assessment of the completeness of cytoreduction and morphological signs of therapeutic pathomorphosis in the resected material. The results obtained were analysed in the context of the current recommendations of the European Society of Gynaecological Oncology/European Society of Medical Oncology (ESGO/ESMO) 2023 [15], which allowed comparing the individual clinical course with modern standards of management of patients with advanced ovarian cancer. The course of the disease in a 45-year-old patient with bilateral ovarian tumour lesions, ascites and widespread peritoneal carcinomatosis was analysed. The patient was in a state of surgical menopause for 11 years. Comorbidities included stage II arterial hypertension, metabolic cardiomyopathy, stage I aortic valve insufficiency and stage II obesity. Allergic history is not burdened, heredity for oncological diseases is not noted. The first clinical manifestations were nonspecific discomfort in the lower abdomen and episodic bloating.

The initial assessment of the pelvic organs was performed using ultrasound on the Voluson E8 device (GE Healthcare, USA) with subsequent risk stratification according to the Ovarian-Adnexal Reporting and Data System (O-RADS). To clarify the prevalence of the process, computed tomography (CT) of the abdominal cavity and pelvic organs was performed on a Siemens multispiral tomograph (Germany), as well as magnetic resonance tomography (MRI) on a device with a magnetic field strength of 1.5 T (GE Healthcare, USA). In order to exclude primary gastrointestinal neoplasia, fibrogastroscopy and colonoscopy were performed using the Olympus EVIS EXERA III video endoscopic system (Olympus Medical Systems, Japan). In order to accurately assess the extent of the tumour process, determine resectability and justify the choice of primary or interval surgical tactics, the patient underwent diagnostic laparoscopy. During the intervention, a systematic examination of all anatomical areas of the abdominal cavity and pelvis was performed pursuant to the standard PCI calculation scheme, with a quantitative assessment of the extent and size of tumour implants in each region. At the same time, a targeted biopsy of macroscopically changed areas of the peritoneum was performed for morphological verification of the diagnosis and assessment of the biological characteristics of the tumour. After completion of neoadjuvant polychemotherapy, in order to re-evaluate the response to treatment and clarify the possibility of radical surgery, a control diagnostic laparoscopy was performed with repeated PCI calculation.

At the next stage, a median laparotomy was performed with complex interval cytoreduction, which included bilateral salpingo-oophorectomy, pelvic peritoneumectomy, anterior rectal resection, omentectomy and drainage of the abdominal cavity, in order to remove macroscopic tumour foci as completely as possible. Morphological examination of the biopsy material included standard histological staining and immunohistochemical analysis with determination of the Ki-67 proliferative index, estrogen receptor expression and angiogenesis markers. Immunohistochemical reactions were performed using certified antibodies in accordance with the manufacturer's protocols (Dako, Agilent, Denmark). Given the high primary PCI and the inability to achieve optimal primary cytoreduction, the patient was prescribed NAPHT in line with the standard regimen of paclitaxel in combination with carboplatin. After completing three courses of NAPHT, a reassessment of the response was performed, which included a control CT scan of the chest, abdomen and pelvis, MRI of the pelvis, as well as a repeat diagnostic laparoscopy with determination of PCI dynamics. MRI of the pelvis was used as one of the key methods for assessing the response to NAPHT and stratifying the patient for the possibility of performing interval cytoreductive surgery.

After confirming the reduction of PCI and achieving resectability, interval cytoreductive surgery was performed with subsequent histopathological and immunohistochemical analysis of the resected material to assess the degree of therapeutic pathomorphosis. Proliferative activity, hormone receptor expression and changes in microvascular density were analysed in relation to the clinical and radiological response. Therefore, diagnostic laparoscopy was performed to determine the PCI, which was 24 in the protocol. For this purpose, a course of PCT was performed and re-evaluation was performed immediately after the end of the course of PCT, which established almost complete regression of pathological formations. The limitations of the study include the nature of a single clinical observation, the lack of long-term follow-up of survival indicators and the impossibility of statistical extrapolation of the results.

RESULTS AND DISCUSSION

Pursuant to the global epidemiological estimates for the period 2020-2025, ovarian cancer accounts for about 3.7% of all malignant neoplasms in women and is associated with approximately 4.7% of cancer deaths, with a total number of deaths exceeding 200 thousand worldwide [16]. Despite the introduction of modern combined treatment approaches, the overall 5-year survival rate remains limited and in high-income countries does not exceed 46%, demonstrating a clear dependence on the stage of the disease at the time of diagnosis [17]. In Ukraine, ovarian cancer is among the most common malignant neoplasms of the female reproductive system. Pursuant to national oncological statistics, in 2022, about 28.3 thousand women with this diagnosis were registered, and a significant proportion of cases are detected at later stages, which necessitates the

use of staged multimodal approaches to treatment in real clinical practice [11, 12]. In this context, detailed documented individual observations are of particular clinical value, which allow tracking the implementation of modern recommendations in practice, taking into account the prevalence of the process, the patient's somatic status and morphological characteristics of the tumour. Below are the results of clinical observation of a patient with advanced ovarian cancer, in whom a staged diagnostic and treatment strategy was applied. At the initial stage of clinical examination, within the framework of the primary diagnostic algorithm, during an ultrasound examination of the pelvic organs, bilateral cystic-solid ovarian masses were detected, classified in consonance with the O-RADS system as 5, as well as the presence of ascites. Pathomorphological examination revealed serous adenocarcinoma with signs of moderate differentiation, however, extended histological analysis revealed a predominance of poorly differentiated solid-papillary areas with extensive foci of necrosis and haemorrhage (Fig. 1).

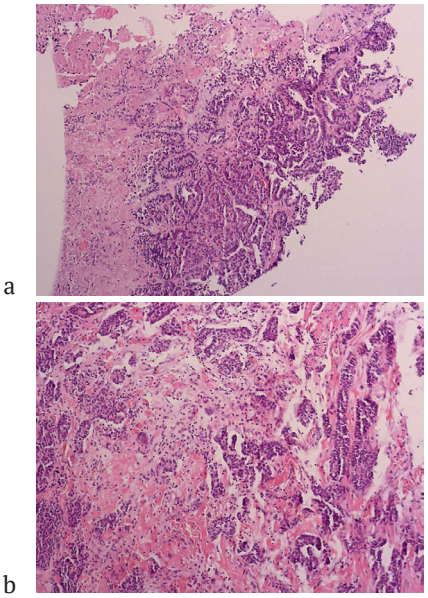

Figure 1. Primary histological material
Note: a – serous adenocarcinoma of the ovary with signs of moderate differentiation; b – poorly differentiated solid-papillary areas of the tumour with extensive foci of necrosis and haemorrhage
Source: compiled by the authors

For further risk stratification and clarification of the extent of the process, a CT scan of the pelvic organs and abdominal cavity was performed, which revealed a massive pelvic tumour, most likely of ovarian origin, with signs of peritoneal carcinomatosis, ascites and microlymphadenopathy of the retroperitoneal space. To exclude primary local gastrointestinal neoplasia, fibrogastroscopy and colonoscopy were performed, no pathology was detected. In order to assess resectability, a diagnostic laparoscopy was performed: PCI was 24, which corresponded to a significant spread of the tumour process. A biopsy of the metastatically affected areas was performed. Pathomorphological examination revealed a moderately differentiated serous adenocarcinoma of glandular-papillary structure with the presence of vascular invasion. Immunohistochemical study of the primary biopsy material confirmed the pronounced nuclear expression of estrogen receptors in the majority of tumour cells, which is consistent with the serous phenotype of high malignant potential and supports the assumption of an ovarian origin of the process (Fig. 2).

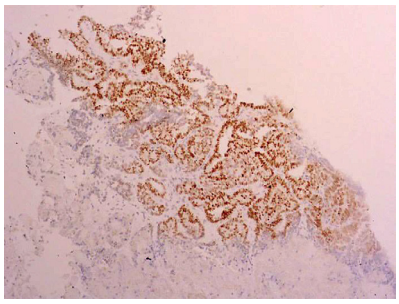

Figure 2. Immunohistochemistry of the primary tumour
Source: compiled by the authors

The presence of a developed microvascular network with numerous small vessels in the tumour stroma was also established, which is a characteristic feature of the high angiogenic activity of serous carcinomas (Fig. 3).

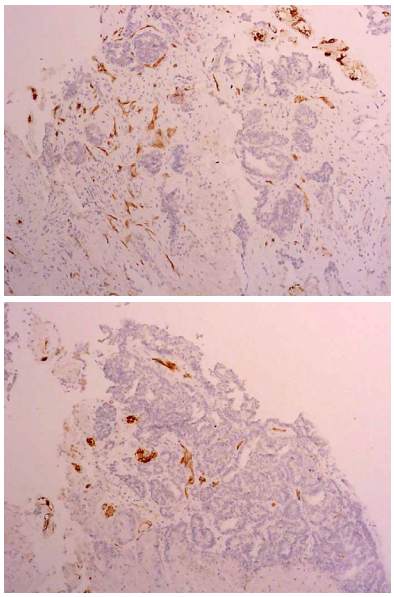

Figure 3. Histological structure of the primary tumour
Note: a – diffusely developed microvascular network in the tumour stroma of serous carcinoma; b – accumulation of small-calibre vessels in solid-papillary areas of the tumour
Source: compiled by the authors

Additional histological analysis confirmed that the primary tumour was characterised by a low degree of differentiation with a predominantly solid-papillary architecture, the presence of extensive areas of necrosis and haemorrhage, a significant microvascular network, and high proliferative potential (Ki-67 about 30%) (Fig. 4).

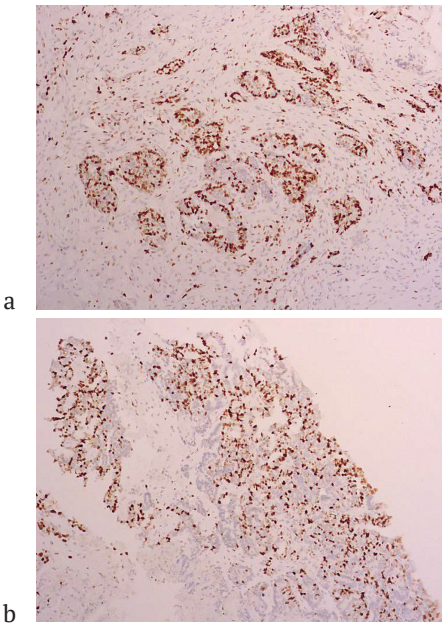

Figure 4. Immunohistochemical determination of Ki-67 in the primary tumour
Note: a – Ki -67 expression in tumour cells of serous carcinoma; b – foci of increased proliferative activity with a high Ki-67 index
Source: compiled by the authors

Given the high PCI index, the presence of carcinomatosis and the extent of the lesion, the patient was prescribed NAPHT in conformity with the paclitaxel in combination with carboplatin regimen. After three courses of NAPHT, a control CT scan of the chest, pelvis and abdominal cavity was performed, which demonstrated clear positive dynamics: a decrease in the size of the peritoneal nodes, a reduction in ascites and regression of retroperitoneal lymphadenopathy. MRI data of the pelvic organs confirmed a partial, sometimes complete response to treatment, which allowed considering the patient as a candidate for interval cytoreduction. Importantly, achieving such a response with an initially high PCI confirms the sensitivity of the tumour to platinum-containing chemotherapy and creates the basis for surgical intervention with potentially complete cytoreduction.

Additionally, a repeated diagnostic laparoscopy was performed, which showed a decrease in PCI to 4. This became the basis for performing a median laparotomy with complex interval cytoreduction: bilateral salpingo-oophorectomy, pelvic peritoneumectomy, anterior rectal resection, omentectomy, and abdominal drainage. The tumour tissue obtained after chemotherapy and radical surgery was pathohistologically determined as small foci of tumour cells with pronounced dystrophic changes among fields of fibrous tissue and foci of accumulation of xanthoma cells in areas of tumour necrosis (Fig. 5).

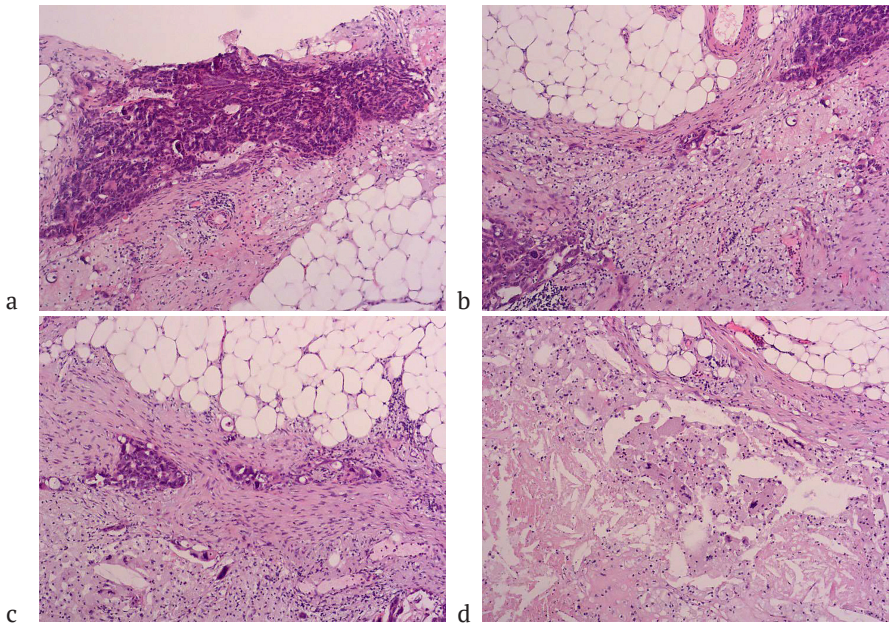

Figure 5. Pathohistological picture after treatment
Note: a – small residual foci of tumour cells with pronounced dystrophic changes on the background of fibrosis; b – fields of dense fibrous tissue with single atypical cells; c – foci of tumour necrosis with accumulation of xanthoma cells; d – areas of post-treatment stromal remodelling without signs of active tumour growth
Source: compiled by the authors

Postoperative histopathological examination revealed poorly differentiated adenocarcinoma with signs of therapeutic pathomorphosis of grade I-II in the right ovary, small residual foci of growth in the left ovary, preserved tumour growth in the pelvic peritoneum, focal lesion of the omentum and superficial lesion of the colonic serosa without invasion into the wall. The proximal and distal resection margins were “clean”. In-depth morphological analysis of the resected material recorded a high degree of therapeutic pathomorphosis. Tumour cells retained clear nuclear expression of estrogen receptors, but were solitary (Fig. 6a, 6b). A significant part of the tumour tissue and

adjacent fibro-fatty tissue showed a decrease in the number of vessels (Fig. 6c). Xanthoma cells are present in areas of previous necrosis. Vascular density was significantly reduced, and CD31 labelling mainly reflected macrophage structures (Fig. 6d). Proliferative activity was dramatically reduced to 2-5% by Ki-67.

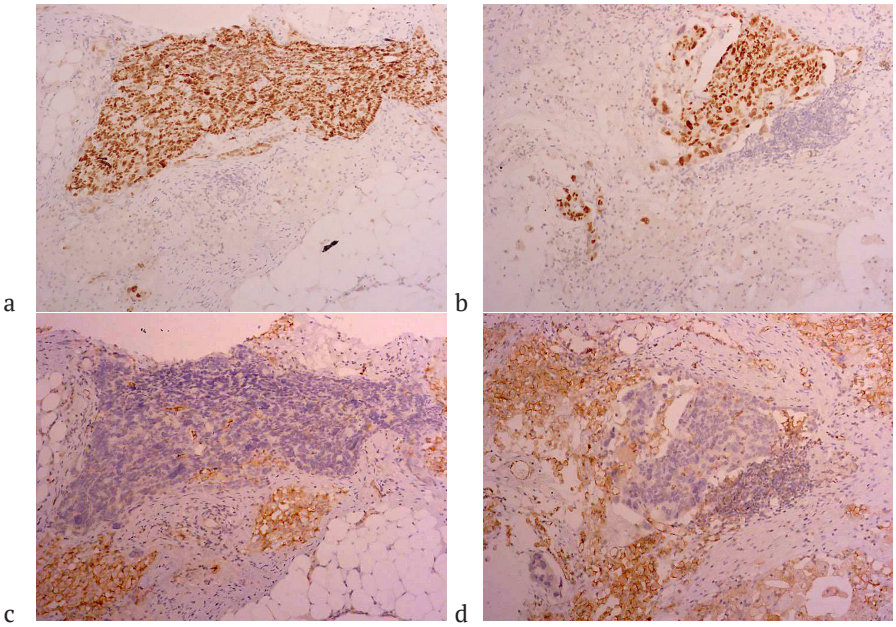

Figure 6. In-depth morphological analysis of resected material after chemotherapy and radical surgery
Note: a – intense nuclear expression of estrogen receptors in residual tumour cells; b – tumour cells with estrogen receptor expression; c – reduced vascular density in tumour and fibro-adipose tissue; d – CD31 labelling of macrophage structures in areas of previous necrosis
Source: compiled by the authors

These changes confirmed the high efficacy of NAPHT, which is consistent with the clinical and radiological dynamics. After the surgical stage, the patient received three more courses of adjuvant chemotherapy with the same regimen (paclitaxel + carboplatin). The final response assessment showed an excellent therapeutic effect without signs of progression. Thus, the obtained results reflected a consistent and methodologically justified interaction of diagnostic, morphological, and therapeutic stages with coordinated radiological, laparoscopic, and histological assessment of treatment response, which made it possible to achieve maximal tumour burden reduction and an optimal clinical outcome. The presented results illustrated a modern evidence-based approach to the management of patients with advanced high-grade serous ovarian carcinoma, based on staged diagnostics, risk stratification, and the personalisation of treatment strategy. The initial examination included multimodal imaging – ultrasound, CT and MRI, as well as diagnostic laparoscopy with determination of the PCI index. This combination of methods allowed to obtain the most accurate characterisation of the prevalence of the tumour process, which is a key element in the formation of the correct treatment tactics.

The scientific evidence base presented by J.A. Ledermann *et al*. [15] demonstrated that laparoscopic determination of PCI is the most accurate method for predicting resectability and allows minimising the risk of suboptimal primary cytoreduction. This became the foundation for making a decision on the appointment of NAPHT. This approach was fully consistent with the ESGO/ESMO guidelines, according to which the stratification of patients with stages III-IV should be based on a combination of radiological and laparoscopic assessment. After three courses of NAPHT based on paclitaxel and carboplatin, a pronounced complex of positive changes was obtained. Pursuant to CT/MRI, a significant decrease in the volume of peritoneal implants, reduction of ascites, and PCI decreased from 24 to 4, which became a relevant argument in favour of the transition to the surgical stage of treatment. Morphological analysis of the material obtained during surgery demonstrated significant therapeutic pathomorphosis: fibrosis, the presence of xanthoma cells, a sharp decrease in the proliferative index (Ki-67 < 5%) and structural reorganisation of the microvascular network. These observations are consistent with the results of W.P. Tew *et al*. [18], who affirmed that a comprehensive assessment of the response, including both morphological and radiological markers, is one of the most reliable predictors of overall and relapse-free survival. In addition, the correspondence between the severity of the morphological response and the decrease in PCI is fully consistent with the results published by J. Hayek *et al*. [19], who proved that the combination of these parameters indicates high chemosensitivity of the tumour.

Surgical intervention was performed after confirmation of resectability based on laparoscopic data and positive dynamics after NAPHT. This algorithm corresponds to the approach proposed by J.A. Ledermann *et al*. [15], in which interval cytoreduction was considered the optimal standard of treatment for patients with high PCI in the presence

of other favourable factors. S. Piedimonte *et al*. [20] noted that it is the combination of a significant decrease in PCI and morphological signs of chemosensitivity that determines the likelihood of achieving complete or optimal cytoreduction. In the presented observation, R0 status was achieved – the absence of macroscopic tumour after surgery. Such a result has a crucial prognostic value, which is confirmed by the data of J.M. Porter *et al*. [21], who established that complete resection is the most critical driver in long-term improvement in survival regardless of whether it is a primary or interval surgery. This trend is also confirmed by N. Norppa *et al*. [22], which further strengthens the significance of the results obtained.

Histological analysis of the resected tissue confirmed a high degree of therapeutic response – single tumour cells against a background of dense fibrosis and a decrease in Ki-67. Similar morphological profiles were defined as favourable in the study by S. Wan *et al*. [23], where a direct relationship between the depth of the pathomorphosis and the duration of the relapse-free period was established. S. Böhm *et al*. [24] highlighted the significance of the Chemotherapy Response Score (CRS) classification, in line with which patients with CRS 3 have better overall and relapse-free survival rates. In the presented study, the morphological picture after NAPHT (pronounced fibrosis, single tumour cells, a sharp decrease in Ki-67 to 2-5%) corresponds to a high degree of therapeutic response, which functionally approaches CRS 3 and confirms the prognostically favourable nature of the obtained pathomorphosis. K.I. Kim *et al*. [25] further confirmed that a decrease in Ki-67 by >25% after NAPHT is an independent predictor of long-term disease control, which was even more pronounced in this patient, with a more than six-fold decrease in the proliferative index compared to baseline, highlighting the high chemosensitivity of the tumour.

The efficacy of the combination of paclitaxel/carboplatin in patients with disseminated serous carcinoma was confirmed by the SCORPION study by A. Fagotti *et al*. [26], which found that NAPHT in patients with a high risk of suboptimal cytoreduction significantly increased the frequency of complete resection and reduced the frequency of postoperative complications. A similar clinical effect was demonstrated in the presented observation: with initially high PCI (24), NAPHT provided a significant reduction in tumour burden (PCI 4) and created the conditions for achieving complete macroscopic cytoreduction (R0). I. Vergote *et al*. [27] obtained similar results in the CHORUS and EORTC-55971 studies, where NAPHT provided comparable survival rates to primary cytoreduction, but was characterised by better tolerability.

Thus, the obtained results showed that a sequential strategy, including initial laparoscopic evaluation, NAPHT administration, assessment of therapeutic response, interval cytoreduction, and subsequent adjuvant therapy, was optimal for patients with a high index of peritoneal involvement. The results obtained are fully consistent with the data of leading international studies and demonstrated the high effectiveness of modern multimodal treatment tactics. Such an approach not only increases the likelihood of achieving R0 resection, but also enhances the long-term prognostic outlook through precise alignment of surgical and systemic therapeutic interventions.

CONCLUSIONS

The presented work summarised the results of the staged management of a patient with advanced high-grade serous ovarian carcinoma with a high primary index of peritoneal carcinomatosis, focusing on the integration of clinical, radiological, laparoscopic and morphological criteria for assessing the response to treatment. The study found that the use of primary diagnostic laparoscopy with PCI determination allows for a reasonable abandonment of suboptimal primary cytoreduction and a timely transition to neoadjuvant polychemotherapy. Three courses of NAPHT according to the paclitaxel/carboplatin regimen provided a pronounced clinical and radiological response, which was quantitatively manifested by a decrease in PCI from 24 to 4 and created conditions for performing interval cytoreduction with the achievement of R0 status. Morphological analysis of the resected material confirmed a high degree of therapeutic pathomorphosis, which was characterised by a sharp decrease in proliferative activity (Ki-67 to 2-5%), fibrous remodelling of the stroma, reduction of microvascular density and the presence of xanthoma cells in areas of previous necrosis. The combination of these qualitative and quantitative indicators indicated high chemosensitivity of the tumour and a favourable prognostic profile.

The results obtained confirmed that a comprehensive assessment of the response, which includes the dynamics of PCI, morphological markers of regression and proliferative indices, has significant practical value for personalising the treatment strategy in patients with advanced ovarian cancer. Based on the analysis, it is recommended to introduce laparoscopic stratification and standardised morphological assessment of the effectiveness of NAPHT in clinical practice more widely. Further studies should be directed at accumulating case series with a unified assessment of PCI, CRS, and molecular markers, which will allow for a deeper understanding of the prognostic significance of morphological response and optimise treatment algorithms for patients with high tumour burden.

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CONFLICT OF INTEREST

None.

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Етапне лікування раку яєчника у пацієнтки: терапевтична стратегія та результати

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Анотація. Епітеліальний рак яєчників залишається одним із найбільш агресивних гінекологічних злоякісних новоутворень, що у більшості випадків діагностується на пізніх стадіях. Метою дослідження було представити етапне лікування пацієнтки з поширеною високоградуальною серозною карциномою яєчників, продемонструвавши значення мультимодальної діагностики, лапароскопічного визначення індексу перитонеального канцероматозу, оцінки морфологічної відповіді та інтегрованої хіміо-хірургічної тактики відповідно до рекомендацій ESGO/ESMO 2023. Пацієнтка 45 років із двобічним оваріальним ураженням, асцитом і високим індексом канцероматозу (24) пройшла комплексне обстеження, що включало ультразвукове дослідження, комп'ютерну томографію, магнітно-резонансну томографію, ендоскопічні методи, лапароскопію з біопсією та поглиблений морфологічний аналіз (гістологія, імуногістохімічне дослідження, оцінка Ki-67, експресії естрогенових рецепторів та ангіогенних маркерів). Патогістологічне дослідження продемонструвало високий ступінь лікувального патоморфозу: різке зниження Ki-67 (до 2-5 %), поодинокі пухлинні клітини на фоні вираженого фіброзу, зменшення мікросудинної щільності та наявність ксантомних клітин у зонах попередніх некрозів. Післяопераційне ад'ювантне лікування забезпечило стабільну відповідь без ознак прогресування. Результати лікування продемонстрували ефективність етапної стратегії лікування поширеного раку яєчників, що поєднувала лапароскопічну оцінку резектабельності, неоад'ювантну поліхіміотерапію, інтервальну циторедукцію та морфологічну верифікацію відповіді. Отримані результати підтвердили високу прогностичну інформативність індексу канцероматозу, Ki-67 та морфологічних маркерів регресії. Результати роботи можуть використовуватися лікарями-онкогінекологами, хіміотерапевтами та патоморфологами у спеціалізованих онкологічних і університетських клініках під час планування та оцінки ефективності етапного лікування поширеного епітеліального раку яєчників

Ключові слова: неоад'ювантна хіміотерапія; циторедукція; перитонеальний карциноматоз; аденокарцинома; паклітаксел; карбоплатин