The Efficiency of Repeated Debulking Surgery for Recurrent Ovarian Cancer

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ABSTRACT

Aim: to estimate the effectiveness of repeated debulking surgeries and identify factors that determine the survival of patients with combined treatment of ovarian cancer recurrence.

Materials and methods: The study included 50 patients: 18 received combined treatment, 32 - chemotherapy. Patients after combined treatment were divided into 2 groups: Group 1 — 12 patients with an overall survival that does not differ from that in the group of patients who underwent chemotherapy; group 2 — 6 patients with a survival rate exceeding that in the group of patients who received chemotherapy. Both groups of patients after combined treatment were compared by the "case-control" method.

Results: In the 2nd group, compared with the 1st, patients with diseases prevailed I-IIIb stages, platinum-sensitive, without metastases in the pleura and liver parenchyma, with residual tumor 1 cm or less after repeated debulking surgery, the presence of an objective response for chemotherapy.

Conclusion: Thus, repeated debulking operations increase survival patients with recurrence of ovarian cancer at stages I-IIIb, platinum sensitivity, in the absence of metastases in the liver and pleura with relapse of the disease, optimal cytoreduction and an objective response of the tumor to chemotherapy.

Keywords: ovarian cancer relapse, repeated debulking surgeries

The incidence of malignant neoplasms of the ovaries remains high and ranks third in the structure of oncogynecological pathology [1]. Despite the introduction of modern methods of treatment, mortality from ovarian cancer (OC) ranks first in the structure of mortality from gynecological tumorial diseases [2]. In the first year of life from the moment of diagnosis, 27.4% of patients die [3]. Basic the cause of deaths is the recurrence of the disease [4]. For the treatment of recurrence of malignant tumors ovaries apply different methods. The feasibility of chemotherapy for recurrent OC generally recognized [5].

At the same time, the evaluation of the effectiveness of combined treatment of recurrent OC remains one of the most controversial issues in oncogynecology. A number of studies have shown that when repeated debulking operations statistically significantly increases the survival rate of patients with recurrent OC [8; 9]. The greatest importance in the prognosis of treatment results is given to the size of the residual tumor

and its sensitivity to chemotherapy [10; eleven]. General the survival rate of patients is significantly higher when complete debulking surgery with minimal residual tumor size is performed [12]. This position was also confirmed in other studies [13; fourteen]. Most researchers emphasize the need to perform surgical interventions in patients with recurrent OC as the most effective way to tumor eradication and creation of favorable conditions for chemotherapy [8—10; fifteen]. In order to achieve minimal residual tumor in patients with recurrent OC with regional and distant metastases repeated combined debulking surgeries, which are most often performed on the organs of the gastrointestinal tract, have become widespread [16].

At the same time, there are opposite evaluation of the results of combined treatment (surgery + chemotherapy) for recurrent OC. In works P. G. Rose et al. (2004) and M. E. L. van der Burg et al. (1995) comparing the results of combined treatment of OC recurrence and polychemotherapy, not revealed significant differences in median total life expectancy between groups. The median overall life expectancy with combined treatment was 36 and 26 months, with chemotherapy — 35.7 and 20 months [17;eighteen]. Thus, it is not completely clear what influenced on the survival of these patients: surgery or biological features of the tumor and macroorganism.

The purpose of this study was to evaluate the effectiveness of repeated debulking surgeries and identify factors that determine the survival of patients in combined treatment of recurrent OC.

Materials and methods. The study included 50 patients treated with OC in Tashkent city branch of Republican specialized Scientific and practical Medical Center of Oncology and Radiology from 2018 to 2022. Primarily all patients received combined treatment (surgery + chemotherapy or neoadjuvant chemotherapy + surgery + chemotherapy) with platinum-containing polychemotherapy regimens: platinum drugs + cyclophosphamide or drugs platinum + paclitaxel. Platinum-resistant patients were 24 (49.5%), platinum-sensitive — 26 (50.5%).

When the disease recurred, combined treatment (repeated cytoreductive surgery + chemotherapy) was performed in 20 (40%) patients. In this group I-II stage of OC was in 6 (30 %) patients, III-IV - in 14 (70 %). By histological type, the patients were distributed as follows: serous adenocarcinoma — in 12 (60 %), mucinous — in 3 (15 %), endometrioid — in 2 (10 %), clear cell — in 3 (15 %).

A highly differentiated tumor was detected in 4 (20 %) patients, moderately differentiated – in 4 (20 %), poorly differentiated - in 12 (60 %). The tumor in the recurrence of the disease was localized in the pelvis in 5 (25 %) women, in the abdominal cavity without damage to the liver parenchyma — in 11 (55 %). Distant
metastases were detected in 4 (20 %) cases.

Possible surgical interventions were performed: 2 (10 %) - extirpation of the cervical stump or resection of the vagina with removal of the tumor, 1 (5%) - lymphadenectomy, 17 (85 %) - removal of the tumor . In 4 (20 %) patients, the operation was supplemented by surgical intervention on the organs of the gastrointestinal tract (combined operations): colon resection with anastomosis - in 2 (10 %), resection colon with the formation of a colostomy – in 1 (5 %),resection of the small intestine with anastomosis — in 1 (5 %), appendectomy — in 1 (5 %). In the postoperative period 1 patient died.

Results. In the combined treatment of recurrent OC, complete tumor regression was achieved in 10 (50 %) patients, partial regression - in 4 (20 %), disease stabilization - in 4 (20%). Disease progression was observed in 2 (10 %) patients. During chemotherapy in as a stand-alone treatment, these indicators were as follows: complete regression of the tumor - in 6 (30 %) patients, partial regression — in 2 (10 %), stabilization of the disease — in 4 (20 %). Disease progression was observed in 8 (40 %) women ($p = 0.04$,criterion $\chi 2$). Objective response to cytostatic therapy was achieved in 14 (70 %) operated patients and in 6 (30%)

patients in the surgery treatment (p = 0.01, Fisher's test).

In the study of long-term results after combined treatment and chemotherapy were obtained statistically significant differences between groups in terms of overall 5-year survival, which in the combined treatment group was 9% (median life expectancy 39 months). In the group of patients receiving chemotherapy, there were no patients who survived more than 5 years. The median total 5-year life expectancy in this group was 18 months (p < 0.01, logrank test) .

In the 2nd group of operated patients compared with the 1st group, patients with stages I-IIIb prevailed diseases. In this group, OC stage I-IIIb was in 17 (85 %) women, stage IIIc—IV — in 3 (15 %). In the 1st group, where the overall survival of patients was the same as in patients treated with chemotherapy alone.
There were 11 (55 %) patients with stage I—IIIb, and 9 (45 %; p = 0.04) patients with stage IIIc—IV . Statistically significant groups 1 and 2 differed in sensitivity to platinum-containing schemes.

Conclusion. Repeated cytoreductive operations increase survival rate of patients with recurrent OC stages I-IIIb, with platinum-sensitive tumors, in the absence of multiple metastases in the liver and pleura, with residual with a tumor less than 1 cm and with an objective response of the tumor for chemotherapy.

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