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## MODERN APPROACHES TO THE SYSTEMIC TREATMENT OF RECURRENT OVARIAN CANCER

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Oncology Clinic, Mikaelyan Institute of Surgery*Received 26.04.2023; Accepted for printing 08.10.2023***INTRODUCTION:**

**Introduction:** Recurrent ovarian cancer is one of the most challenging issues in medical oncology. Being the fifth in the cancer mortality list among women, ovarian cancer is the reason of more deaths than any other cancer of the female reproductive system. A meta-analysis was conducted to investigate the optimal treatment options for recurrent platinum-sensitive and platinum-resistant ovarian cancer.

**Methods:** Data for writing this article was collected from the publications in English, Russian and Italian from 2002 to 2023. PubMed and Web of Science were searched for the relevant articles. Survival rates, particularly overall survival (OS), progression-free survival (PFS), and adverse events (AEs) of the chemotherapy regimens were discussed. We analyzed the literature data comparing the effectiveness and safety of chemotherapy, antiangiogenic therapy, the use of poly-ADP ribose polymerase (PARP) inhibitors, and checkpoint inhibitors in the treatment of recurrent ovarian cancer.

**Results:** An overview of the literature devoted to modern approaches to the systemic treatment of recurrent ovarian cancer is given in the article. General principles of classification and treatment of recurrent ovarian cancer are analyzed. The existing regimens of chemotherapy in combination with targeted therapy are given separately for various types of ovarian cancer relapses. Chemotherapy with doublet platinum compounds (carboplatin or cisplatin) continues to be the standard of care in platinum-sensitive relapsed ovarian cancer with or without targeted therapy. Treatment with poly-ADP ribose polymerase inhibitors, vascular endothelial growth factor inhibitors, immunotherapy with checkpoint inhibitors, and antibody-drug conjugate for patients with folate receptor alpha-positive, can be considered in platinum-resistant epithelial ovarian cancer.

**Conclusion:** In summary, we can conclude that despite the success of the primary treatment of ovarian cancer, the majority of patients with a widespread tumor process develop a relapse of the disease over the next two years, which is the cause of death of these patients. The development of effective treatment regimens for recurrent ovarian/fallopian tube/primary peritoneal cancer remains particularly acute and important in gynecological oncology and requires further study

**KEYWORDS:** platinum-sensitive, platinum-resistant, platinum-refractory relapsed ovarian cancer, chemotherapy, targeted therapy, immunotherapy.

**INTRODUCTION**

Ovarian cancer is one of the leading causes of death in gynecological oncology and accounts for about 4% of all new cancer cases in women. Most

ovarian cancer cases are seen in postmenopausal patients and only 15% of the women with this malignant disease are premenopausal [Shen F et al., 2017].

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