

Poster 18: Real-world outcomes of neoadjuvant chemotherapy for ovarian cancer: What happens to patients who never undergo surgery?**Presenting Author:** Kelly Bruce, MD – Mayo Clinic

Topic: Ovarian

Objectives

A proportion of patients with advanced ovarian cancer (OC) treated with neoadjuvant chemotherapy never undergo interval debulking surgery (IDS). We sought to characterize this group and compare their survival to patients who undergo surgery.

Methods

We performed a single institution review of a prospectively maintained OC database. We included patients with stage III/IV high-grade epithelial ovarian cancer who began treatment with chemotherapy (CT) between 2017-2022. Patients who received fewer than 3 cycles were excluded. Primary analysis compared 3-year progression-free (PFS) and overall (OS) survival for patients who underwent IDS to those who received CT only. Secondary analyses compared those with IDS after 3-4 cycles (standard) to those with IDS after 5+ cycles (delayed) and stratified by optimal surgical candidacy (age < 80 years, ECOG score 0 or 1, and albumin \geq 3.5 mg/dL). We report Kaplan-Meier curves and Cox proportional hazards models, univariate and multivariate controlling for clinically and statistically significant covariates.

Results

Of 176 patients, 138 (78.4%) underwent IDS and 38 (21.6%) underwent CT only. At the time of surgical decision, CT only patients were older (median age 72.5 vs 65.0 years, $p < 0.01$) and had worse performance status (39.5% vs 2.2% with ECOG score 2+, $p < 0.01$) and nutrition (17.1% vs 4.5% with albumin < 3.5 g/dL, $p=0.02$). The groups were similar in stage, histology, indication for NACT, and CA 125 normalization. CT only patients had shorter 3-year PFS and OS compared to IDS (PFS 7.2% vs 22.0%, OS 14.0% vs 61.1%; Figure). These findings persisted when stratifying for optimal surgical candidacy. Survival curves for standard and delayed IDS were overlapping. In multivariable analysis, receiving CT only remained independently associated with recurrence (hazard ratio (HR) adjusted for histology and homologous recombination deficiency (HRD); HR=2.58; 95% confidence interval (CI) 1.63-4.10) and death within 3 years (HR adjusted for histology, HRD, and CA 125 normalization; HR=4.60; 95% CI 2.43-8.71).

Conclusions

In this study, patients who underwent IDS were younger and had superior nutritional and performance status. In multivariable analysis, IDS was associated with improved survival. Gynecologic oncologists should continue to recommend IDS in patients who are fit candidates for surgery.

Abstract Table or Graph

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