Poster 22: Extended neoadjuvant chemotherapy in advanced ovarian cancer treated with cytoreductive surgery and hyperthermic intraperitoneal chemotherapy: decision drivers and surgical outcomes

Presenting Author: Kseniia Uzhegova, MD, Mercy Medical Center

Topic
Ovarian

Objectives
Complete cytoreduction (CC) is the surgical goal in patients with advanced epithelial ovarian cancer (EOC). While some patients undergo the recommended 3-4 cycles of neoadjuvant chemotherapy (NACT), others receive extended treatment. We aimed to identify the factors driving the decision for extended NACT and its impact on surgical outcomes.

Methods
Newly diagnosed FIGO stage III/IV EOC patients, selected for interval cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (CRS/HIPEC) were identified from a single-center prospective database and grouped by standard (3-4 cycles, SN) and extended (>4 cycles, EN) NACT. Perioperative characteristics were compared. EN decision drivers were identified via multivariable logistic regression with forward selection (p=0.05) among disease management (palliative intent, CRS/HIPEC consultation, care fragmentation) and tumor biology factors (parenchymal metastasis, pleural effusion, radiologic response [RR]). RR was defined as complete or partial tumor reduction. Multivariate Cox regression analysis, adjusted for age and parenchymal disease, was performed to assess the impact of EN on progression-free (PFS) and overall survival (OS).

Results
Overall, 77 (77%) had SN and 23 (23%) had EN. Groups were balanced by age and stage (Table 1). SN vs EN had similar peritoneal cancer index (median: 21 vs 22, p=0.872), length of surgery (median: 466 vs 455 minutes, p=0.798), and CC (77.9% vs 82.6%, p=0.628) and major complication rates (17.6% vs 8.7%, p=0.510). SN vs EN had similar rates of CRS/HIPEC consultations before NACT (32.5% vs 38.1%, p=0.658), care fragmentation (65.8% vs 70%, p=0.722), and RR (90.9% vs 94.4%, p=1.000), respectively. EN was independently associated with parenchymal metastasis (odds ratio [OR]: 4.53 [95%CI: 1.09–18.92]) and initially palliative intent (OR: 8.34 [95%CI: 2.67–26.05]). Fewer EN patients received adjuvant chemotherapy (30.4% vs 81.8%, p< 0.001). EN was not associated with better PFS (hazard ratio [HR]: 0.95 [95%CI: 0.44–2.06]) or OS (HR: 1.19 [95%CI: 0.59–2.43]).

Conclusions
The presence of parenchymal metastases and initial palliative intent are independently associated with EN. EN is not associated with reduced presurgical tumor burden, improved CC or complication rates, or enhanced survival.