

examined by determination of sphere-forming capacities, the frequency of sphere-forming and tumor-initiating cells and the expression levels of OCSCs markers. Immunoprecipitation assay was used for determination of the binding between PARP1 and nuclear YAP. The post-translational modification of YAP was examined by western blot.

**Results** PARP1 positively regulates the stemness of OCSCs; treatment with PARP1 inhibitors also suppressed the stemness of OCSCs. PARP1 enhanced YAP activity reflected by upregulation of the mRNA levels of YAP target genes and the protein level of nuclear YAP. PARP1 enhanced the stabilization of YAP in nucleus and the ubiquitination of nuclear YAP was involved in this process. The positive correlation between PARP1 and nuclear YAP was found in both cell-based and mice models. Knockdown of YAP abolished the effect of PARP1 on OCSCs stemness.

**Conclusions** PARP1 promotes the stemness of OCSCs and stabilization of nuclear YAP is the underlying mechanism. This finding is useful for extension of the clinical use of PARP1 inhibitors for eradicating human OCSCs.

EPV217/#534

#### IMPACT OF RESIDUAL TUMOR SIZE BY COMPUTED TOMOGRAPHY AFTER PRIMARY OPTIMAL CYTOREDUCTION ON PROGNOSIS OF ADVANCED OVARIAN CANCER

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10.1136/ijgc-2021-IGCS.288

**Objectives** To evaluate the prognostic significance of residual tumor size on computed tomography (CT) after upfront surgery for advanced ovarian cancer (AOC).

**Methods** We collected data of patients with stage III-IV high-grade serous carcinoma of the ovary (HGSC) who underwent optimal cytoreduction between 2013 and 2018. They took CT between upfront surgery and adjuvant chemotherapy. We evaluated surgical and radiological residual tumor size after upfront surgery, which was divided into R0 (no residual lesion) and R1 (residual tumor <1 cm).

**Results** A total of 106 patients received surgical R0 (n=73, 68.9%) and R1 (n=33, 31.1%). Among all patients, 66 (62.3%) and 40 (37.7%) showed radiologic R0 and R1, respectively. In 73 patients with surgical R0, 56 (76.7%) and 17 (23.3%) showed radiologic R0 and R1, whereas 10 (30.3%) and 23 (69.7%) were observed in 33 with surgical R1, respectively. In terms of survival, both surgical R0 and radiological R0 showed better progression-free survival (PFS; 26 vs. 16 mos; 33 vs. 15 mos;  $p < 0.05$ ), whereas no difference in overall survival based on residual tumor size. In multivariate analysis, surgical R0 was the only factor that improved PFS (adjusted HR, 0.45; 95% CI, 0.21–0.98). On the other hand, radiologic R0 didn't reach statistical significance (adjusted HR, 0.58; 95% CI, 0.14–1.03).

**Conclusions** Although patients with radiologic R0 showed better PFS in univariate analysis, there was no significance in multivariate analysis. Therefore, surgical R0 was more important factor to predict the prognosis of disease than radiologic R0 in AOC patients with optimal cytoreduction.

EPV218/#551

#### DEVELOPMENT OF A NOMOGRAM TO PREDICT THE FEASIBILITY OF MINIMALLY INVASIVE INTERVAL DEBULKING SURGERY IN PATIENTS WITH ADVANCED OVARIAN CANCER: A LARGE MONOCENTRIC COHORT STUDY

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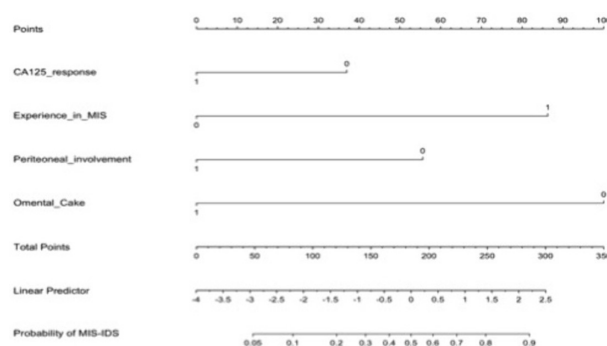
10.1136/ijgc-2021-IGCS.289

**Objectives** Currently, no clear guidance defining the ideal candidate for minimally invasive interval debulking surgery (MI-IDS) exists. This study aimed to identify predictive factors of minimally invasive approach feasibility in advanced ovarian cancer (AOC) patients who were candidates to IDS after neo-adjuvant chemotherapy (NACT).

**Methods** This was a single institution, retrospective study. Peri-operative variables were used to predict the likelihood of MI-IDS using multivariable models. A nomogram was developed, and internal validation was performed using the bootstrapping correction technique.

**Results** Between 2014 and 2020, 108 (28.4%) and 272 (71.6%) patients underwent IDS by minimally invasive and open approach, respectively. Surgeon's expertise (OR:6.27, 95% CI:3.25–12.08,  $p \leq 0.001$ ), absence of omental cake (OR: 8.56, 95% CI: 4.22–17.33,  $p \leq 0.001$ ), <2 peritoneal sites involvement (OR:3.11, 95% CI:1.45–6.65,  $p=0.003$ ) and complete serological response (OR:2.23, 95% CI:1.21–4.11,  $p=0.010$ ) appeared to be significantly correlated with MI-IDS feasibility at multivariate analysis.

A nomogram was built to visualize the effect of perioperative variables on the estimated probability of MI-IDS in patients with a clinical response after NACT. We used the



**Abstract EPV218/#551 Figure 1**

*Ca125\_response* indicates complete response (0) or partial/stable serologic response (1). *Experience\_in\_MIS* indicates good surgeon's experience in MIS (1) or not (0). *Peritoneal\_involvement* indicates  $\geq 2$  sites (1 of < 2 sites (0) involved). *Omental\_cake* indicates presence (1) or absence (0) of omental cake.

To use, find Ca125 response on Ca125\_response axes, then draw straight line upward to points axis to determine how many points patient receives for Ca125\_response. Do this again for other axes, each time drawing straight line upward toward points axis. Sum points received for each variable and find sum on total points axis. Draw straight line down to probability of MIS-IDS axis to find patient's probability of receiving MIS-IDS.