were identified. Immunohistochemical staining of tumor tissue for CD8, FOXP3, PDL1, E-cad and vimentin was performed. The level of expression was measured using established protocols of each marker and was dichotomized (high vs. low) using median value. The association of level of expression of each marker with progression-free or overall survival were examined.

Results The mean age was 61.5 years (range 48 to 79) and 23 patients were stage 3. The median progression-free survival (PFS) was 458 days (range 13 to 4450) and that of overall survival (OS) was 1900 days (range 13 to 4890+). None of 5 markers were associated with progression-free survival (PFS). However, CD8 (p=0.2) and vimentin (p=0.1) were marginally associated with overall survival (OS). Patients with high expression of CD8 or vimentin had numerically longer PFS than those with low expression in both CD8 and vimentin (median 592d vs 390d, p=0.073). Additionally, patients with high expression of CD8 or vimentin had significantly longer OS than those with low expression in both CD8 and vimentin (median 2834d vs 761d, p=0.008).

Conclusion/Implications CD8 and vimentin expression was associated with overall survival in patients with ovarian cancer having received intraperitoneal chemotherapy.

EP270/#697 CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY (HIPEC) FOR RECURRENT HIGH GRADE SEROUS OVARIAN CANCER

[1]Jimin Lee*, [2]Jeeyeon Kim, [2]Joo-Hyuk Son, [2]Tae-Wook Kong, [2]Suk-Joon Chang. *[1]Ajou university Hospital, Obgy, Suwon city, Korea, Republic of; [2]Ajou University Medical Center, Obstetrics and Gynecology, Suwon, Korea, Republic of*

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Introduction Our objective was to compare the differences between the group of recurrent ovarian cancer patients who underwent secondary cytoreductive surgery with HIPEC and without HIPEC, focused on recurrent pattern after surgery and survival outcomes.

Methods From January 2014 to April 2023 at Ajou university hospital, ovarian cancer patients who underwent secondary cytoreductive surgery were included in this study. Various clinicopathological features, progression free survival and overall survival were evaluated.

Results Total 29 patients (18 patients without HIPEC, 11 with HIPEC during secondary cytoreductive surgery) were identified, and 19 patients experienced recurrence. The groups without HIPEC had a higher incidence of extra-abdominal recurrence compared to the group with HIPEC (63.6% versus 0%, p=0.013). The mean overall survival of patients with extra-abdominal recurrence was 54.9 months, whereas patients without extra-abdominal recurrence was 94.4 months (p=0.028). The median hospitalization duration, estimated blood loss during surgery, complications after surgery (except ileus) has no statistically significant difference between two groups.

Conclusion/Implications Although longer follow-up period and larger population may be necessary, there was higher incidence of extra-abdominal recurrence after secondary cytoreductive surgery without HIPEC than with HIPEC. In the case of recurrent ovarian cancer amenable to surgical intervention, performing HIPEC during cytoreductive surgery may influence the survival rates without significant adverse effect.

EP271/#204 THE ANTI-CANCER EFFECTS OF AZD4547 ON OVARIAN CANCER CELLS: DIFFERENTIAL RESPONSES BASED ON FGF19 AND C-MET EXPRESSIONS

[1]Jae Ryoung Hwang, [1]Ji-Yoon Ryu, [1]Young-Jae Cho, [2]Choi Ju-Yeon, [2]Jung-Joo Choi, [3]Jason Sa, [4]Yoo Young Lee, [2]Jeong-Won Lee*. *[1]School of Medicine, Sungkyunkwan Univeristy, Research Institute for Future Medicine, Seoul, Korea, Republic of; [2]Research Institute for Future Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of; [3]College of Medicine, Korea Univeristy, Biomedical Sciences, Seoul, Korea, Republic of; [4]Samsung Medical Center, Obstetrics and Gynecology, Seoul, Korea, Republic of*

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Introduction The FGF/FGFR signaling pathway is known to have a critical role in physiological and pathological processes in human cancers. We analyzed the anti-tumor effect of AZD4547, an inhibitor targeting the FGF/FGFR pathway in epithelial ovarian cancer (EOC).

Methods We treated EOC cells with AZD4547 to evaluate its effects on cell viability and migration. In vivo experiments in orthotopic xenografts using EOC cells and a patient derived xenograft (PDX) model were also performed. Combination effect of AZD4547 and either SU11274, a c-Met-specific inhibitor, or FGF19-specific siRNA was evaluated by MTT assay.

Results AZD4547 significantly decreased cell survival and migration in EOC cells except for A2780-CP20 and SKOV3-TR cells. AZD4547 significantly decreased tumor weight in xenograft models of EOC cells and in a PDX model established with platinum-sensitive tumors but not in A2780-CP20 and SKOV3-TR. Expression of c-Met in SKOV3-TR cells was higher than other cells and combination of SU11274 and AZD4547 increased cell death. Although FGFR1–3 proteins were relatively highly expressed in EOC cells used in this study, FGFR4 was strongly expressed only in A2780 and A2780-CP20. In addition, FGF19 expression, a ligand for FGFR4, was exclusively high in A2780-CP20 cells. Combining AZD4547 with FGF19 siRNA or with a selective FGFR4 inhibitor led to significantly reduced cell proliferation in A2780-CP20.

Conclusion/Implications We suggest that expression level of c-Met or FGF19 can be a predictive biomarker for AZD4547 treatment and that combination therapy of drugs targeting c-Met or FGF19 with AZD4547 can be an effective therapeutic strategy for treating resistant EOCs.

EP272/#891 IMPACT OF CLINICAL TRIAL PARTICIPATION ON THE SURVIVAL OF PATIENTS WITH NEWLY DIAGNOSED ADVANCED-STAGE OVARIAN CANCER

[1]Yong Jae Lee*, [1]Jung-Yun Lee, [1]Eunji Nam, [2]Sang Wun Kim, [3]Sunghoon Kim, [4]Young Tae Kim. *[1]Yonsei University College of Medicine, Department of Obstetrics and Gynecology, Women's Cancer Center, Yonsei Cancer Center, Institute of Women's Life Medical Science, Seoul, Korea, Republic of; [2]Yonsei University College of Medicine, Obstetrics and Gynecology, Seoul, Korea, Republic of; [3]Institute of Women's Life Medical Science, Yonsei University College of Medicine, Department of Obstetrics and Gynecology, Seoul, Korea, Republic of; [4]Yonsei Cancer Center, Department of Obstetrics and Gynecology, Seoul, Korea, Republic of*

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Introduction Clinical trials provide access to novel treatment strategies, which may offer survival benefits to ovarian cancer

patients. We sought to determine if participation in any clinical trial is associated with a survival benefit in patients with newly diagnosed advanced-stage ovarian cancer.

Methods We retrospectively investigated the patients who treated for newly diagnosed advanced-stage ovarian cancer at Yonsei Cancer Hospital between 2019 and 2021. This study included 202 patients with stage III-IV, 82 patients who participated in clinical trials and 120 participants receiving standard-of-care therapy (SOC).

Results The median follow-up duration was 31.5 months. Disease recurrence occurred in 123 (60.9%) patients and 45 (22.3%) patients died. Among the patients in both groups, there were no significant differences in age, histologic type, stage, median CA-125 level, comorbidities, and BRCA 1/2 status. There were also no differences in the incorporation of hyperthermic intraperitoneal chemotherapy, neoadjuvant chemotherapy, residual disease after cytoreductive surgery. The patients involved in clinical trials were associated with significantly improvement in progression-free survival (PFS) (31.4 vs. 19.2 months; HR, 0.67; 95% CI, 0.46 to 0.97; p = 0.034) compared to SOC. There was no difference in overall survival between two groups (P = 0.164).

Conclusion/Implications Clinical trial participation was associated with improved PFS in patients with newly diagnosed advanced-stage ovarian cancer. Clinical trial participation is considered to be beneficial to patients with newly diagnosed advanced-stage ovarian cancer.

EP274/#837 CHARACTERIZATION OF A THREE-DIMENSIONAL CULTURE SYSTEM REPRESENTATIVE OF DISEASE PROGRESSION IN HIGH-GRADE SEROUS OVARIAN CANCER

[1]Naya El Mokbel, [1]Alicia Goyeneche, [1]Rewati Prakash, [1]Benjamin Forgie, [1]Farah Abdalbari, [2,3]Shuk On Annie Leung*, [1,3]Carlos Telleria. *[1]McGill University, Experimental Pathology Unit, Department of Pathology, Faculty of Medicine, Montreal, Canada; [2]McGill University Health Centre, Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, Montreal, Canada; [3]Research Institute of the McGill University Health Centre, Cancer Research Program, Montreal, Canada*

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Introduction PEO1, PEO4 and PEO6 are cell lines derived from a single patient with high-grade serous ovarian cancer, the most common disease subtype, which illustrate disease progression. In cell culture-treated flat-bottom flasks, PEO1 and PEO4 form two-dimensional cellular aggregates and PEO6 form three-dimensional structures. This project aims to determine if differences in morphology, viability, proliferation, and metabolic activity exist between the three cell lines when grown in an ultra-low attachment plate more representative of in-vivo conditions.

Methods PEO1, PEO4 and PEO6 cells were grown in ultra-low attachment plates. Live/dead cell imaging, apoptosis and proliferation detection as well as ATP quantitation assays were performed using microscope imaging, cytometry and spectrophotometry methods.

Results The cell lines were morphologically different, mimicked the multilayered structure of in-vivo tumors and had a similar proliferation pattern. PEO1 displayed the highest aggregation level, PEO6 the highest compaction level, and PEO4 the lowest aggregation and compaction levels. All three cell lines were found to mimic poorly vascularized tumors by forming a multilayered structure with an outer layer of live cells and an inner core of apoptotic cells, but at different times. It was observed that PEO1, PEO4 and PEO6 cells proliferate mostly in the cell masses' periphery. PEO6 cells produced a higher amount of ATP followed by PEO4 and then PEO1 cells after 4 and 7 days.

Conclusion/Implications Three-dimensional cell culture of established ovarian cancer cell lines in such environment likely will serve as a preclinical model of disease to provide experimental responses to therapeutic agents.

EP276/#634 THE IMPACT OF HISTOLOGIC SUBTYPES ON SURVIVAL OUTCOMES IN PRIMARY MUCINOUS OVARIAN CANCER

Hyunji Lim*, Se Ik Kim, Hee Seung Kim, Hyun Hoon Chung, Jae-Weon Kim, Noh Hyun Park, Yong-Sang Song, Maria Lee. *Seoul National University Hospital, Department of Obstetrics and Gynecology, Seoul, Korea, Republic of*

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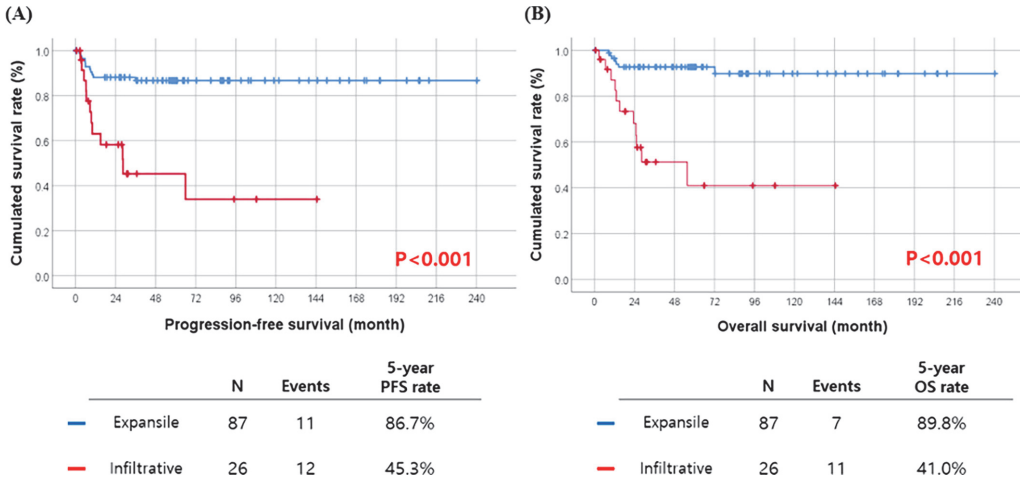
Introduction Primary mucinous ovarian cancer (PMOC) is a unique and rare subtype of ovarian cancer. In 2014, the World Health Organization introduced a new histologic classification by dividing PMOC into two subtypes: expansile or



Abstract EP276/#634 Figure 1 (A) PFS (B) OS according to histologic classification among all patients