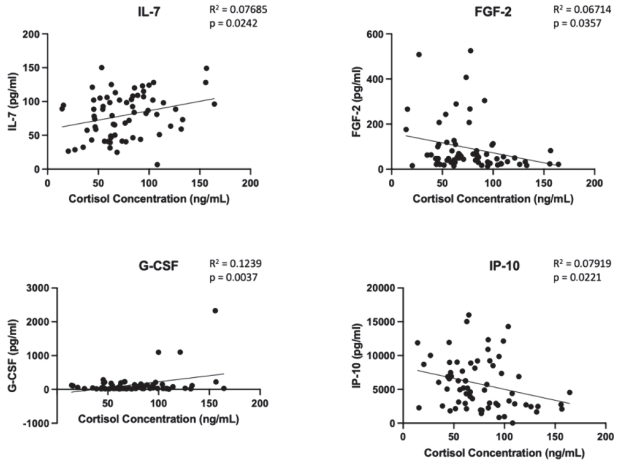

Abstract EPV188/#270 Figure 1

Objectives Cancer patients with increased stress have worse quality of life and survival. Stress hormones such as cortisol also contribute to suppressed immune function. Stress hormones, immune cells and cytokines are evaluable in the ascites of patients with advanced stage high grade serous epithelial ovarian cancer (HGSOC). We determined the relationship between cortisol and cytokines in ascites from patients with HGSOC.

Methods Clinicodemographic information and ascites from 66 patients with primary or recurrent HGSOC were collected. Cortisol concentration was measured by ELISA using Parameter™ Cortisol. Milliplex® MAP Human Cytokine/Chemokine Magnetic bead panel was utilized to measure cytokine levels. Significance was determined using linear regression using $p<0.05$.

Results Cortisol was positively correlated with IL-7 (slope=0.2782, 95% CI:0.03742–0.5189), which is a known contributor to invasiveness and metastasis of cancer. G-CSF (associated with tumor growth, angiogenesis and poor prognosis) was associated with elevated cortisol levels (slope=3.581, 95% CI:1.203–5.959). Conversely, cortisol was negatively correlated with cytokines that promote immune response. This included FGF-2 (slope=-0.8821, 95% CI:-1.703-(-0.06101)) and IP-10 (slope=-32.44, 95% CI:-60.07-(-4.817)), a chemokine that plays a role in recruiting activated T cells to inflammatory sites.

Conclusions Our data suggest increased ascites-derived cortisol from patients with HGSOC is associated with higher levels of IL-7 and G-CSF, cytokines that promote tumor growth. Higher levels of ascites-derived cortisol correlated with lower levels of FGF-2 and IP-10, cytokines that enhance immune function. Ascites from HGSOC patients provide a window into how stress hormones impact tumor and immune cells.

EPV189/#277 TEMPORAL TRENDS OF HEALTHCARE SYSTEM COSTS AND UTILIZATION RELATED TO OVARIAN CANCER DIAGNOSIS IN THE UNITED STATES

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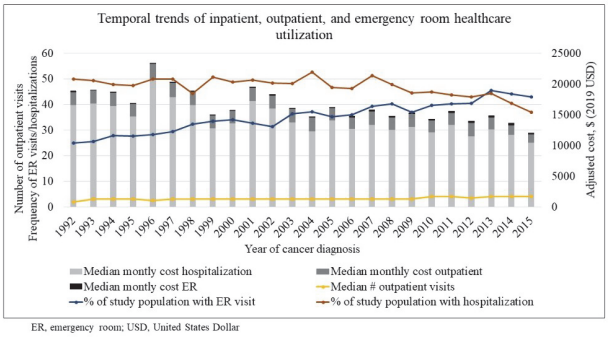
Objectives To describe healthcare system costs and utilization between symptomatic presentation and ovarian cancer diagnosis in the United States.

Methods A population-based study of the Surveillance, Epidemiology, and End Results (SEER)-Medicare database was conducted on patients ≥66 years old with stage II-IV epithelial ovarian cancer between 1992–2015 with at least one of the following diagnosis codes in the year before diagnosis: abdominal pain, bloating, difficulty eating, and/or urinary symptoms. The outcomes were cost and type of healthcare system utilization between first symptomatic claim and cancer diagnosis date for any reason. Jonckheere-Terpstra and Cochran-Armitage tests evaluated trends over time.

Results Among 13,872 women, the most common imaging was CT (67.6%), followed by pelvic ultrasound (49.5%), MRI (4.2%), and PET (1.2%). Between 1992–2015, frequency of ultrasound decreased ($p<.001$) while CT, MRI, PET, and CA-125 increased ($p<.001$). In the overall cohort, median cost per month was $13,941 for hospitalizations, $2041 for outpatient visits, and $218 for emergency room (ER) visits. Median monthly total, inpatient, and outpatient costs decreased ($p<.001$) while ER costs increased over time ($p<.001$). The number of outpatient visits ($p<.001$) and frequency of ER visits ($p<.001$) increased while frequency of hospitalizations ($p<.001$) decreased over time. Median hospital length of stay decreased from 10 days in 1992 to 5 days in 2015 ($p<.001$).



Abstract EPV189/#277 Figure 1 Temporal trends of inpatient, outpatient, and emergency room healthcare utilization

Conclusions Healthcare utilization costs between symptomatic presentation and ovarian cancer diagnosis have decreased over time and reflect the trends in fewer and shorter hospitalizations and increased use of ER and outpatient management during the evaluation of symptoms of women with ovarian cancer.

EPV190/#320 PROGNOSTIC IMPACT OF PD-L1 EXPRESSION IN EPITHELIAL OVARIAN CANCER: A COHORT OF 49 PATIENTS

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Objectives Role of checkpoint inhibitors in ovarian cancer is still unknown and results from ongoing clinical trials are still

awaited. We aim in this study to assess the expression of PD-L1 using the Combined Positive Score (CPS) and to evaluate its impact on the overall survival in a cohort of 49 patients diagnosed with high-grade serous ovarian cancer.

Methods Medical charts were reviewed of 49 patients with high-grade serous ovarian cancer operated on at the gynecologic oncology department in Hôtel-Dieu de France hospital, Lebanon, between 2015 and January 2020. Immunohistochemical staining was performed for PD-L1 (Agilent Dako, PDL-1 IHC 22C3) and for TP53 (Agilent Biogenex, clone D07, 1:100 dilution) on whole tissue sections from a representative block of formalin-fixed, paraffin-embedded tumor tissue.

Results 55% of patients presented a positive PD-L1 status. No correlation was found between the PD-L1 status and the stage of the disease. Lymph node status was similar between the two cohorts, positive vs. negative CPS score (p = 0.927). Median follow-up was 36 months (range, 12 – 72 months). Survival rate was similar between the two cohorts, positive vs. negative PD-L1 status (88.9% vs. 72.7% respectively, p = 0.14). No correlation was found between recurrence rate and PD-L1 status (p = 0.184). No correlation was found between PD-L1 status and TP-53 type (wild vs. mutated) (p = 0.154)

Conclusions PD-L1 status has no impact on the prognosis of patients with high-grade serous ovarian cancer. Also, patients with TP53-mutation do not present increased expression of PD-L1 in comparison to patients with TP53 wild-type.

EPV191/#327 DRUG SCREENING OF PATIENT-DERIVED ORGANOIDS FROM OVARIAN CANCER CULTURE TO PERSONALIZED THERAPY, AN EXPLORATORY RESEARCH

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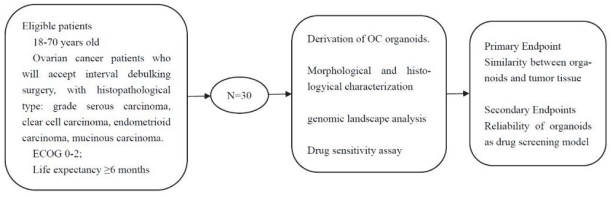
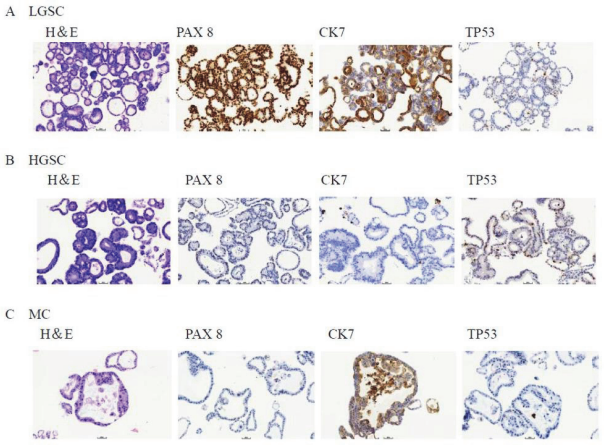
Objectives Organoids are a 3D culture model that can provide the precise genetic information and phenotype, as well as the heterogeneity of the tumor, thus provide powerful tools to model human diseases. The study (CQGOG0201) is an exploratory research to access whether organoids could guide precision treatment for OC patients.

Methods The CQGOG0201 study is a single-center, prospective, observational clinical trial. The trial design is shown in figure 1. The inclusion criteria and exclusion criteria are shown in table 1. Primary endpoint is the similarity between organoids and their corresponding tumor tissue. Secondary endpoint is the reliability of organoids obtained from IDS cases as a model for the patient's response to platinum-based adjuvant chemotherapy.

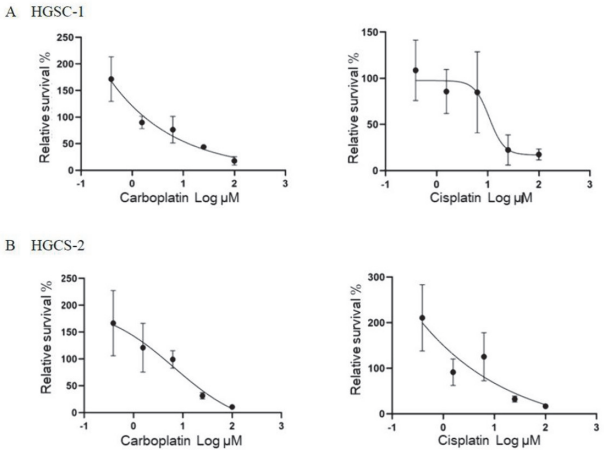
Results We completed the collection of tumor tissues from 30 different patients, including 22 HGCS patients, 3 LGCS patients, 2MC, 1 EC patients, 2 CC patients, and established 9 organoid lines, derived from 15 different patients with primary tumor tissues. Organoids were derived with a success rate of 60%, in particular from the HGSC, LGSC and MC



Abstract EPV191/#327 Figure 1 Study design



Abstract EPV191/#327 Figure 2 Respective images of H&E and IHC of PAX8, CK7 and TP53 from OC organoids



Abstract EPV191/#327 Figure 3 Drug sensitivivty test for platinum-based chemotheraphy

Abstract EPV191/#327 Table 1 Brief Inclusion and exclusion criteria

Inclusion Criteria:	Exclusion Criteria:
1. Subjects join the study voluntarily and sign the informed consent; 2. Ovarian cancer patients who will accept primary cytoreductive surgery, with histopathological type: low/high grade serous carcinoma, clear cell carcinoma, endometrioid carcinoma, mucinous carcinoma. 3. Female subjects are 18 to 70 years old; 4. ECOG score 0~2; 5. Life expectancy ≥6 months; 6. Subjects have enough organ function; 7. Women of child-bearing age should have negative results of serum or urine pregnancy test within 7 days before recruited and must not be in lactation. Women are willing to adopt the appropriate methods of contraception during the trial.	1. Active or uncontrolled severe infection; 2. Liver cirrhosis, decompensated liver disease; 3. History of immune deficiency, including HIV positive or suffering from congenital immunodeficiency disease; 4. Chronic renal insufficiency or renal failure; 5. Any other malignant tumor has been diagnosed within 5 years before enrollment; 6. Myocardial infarction, severe arrhythmia and NYHA (New York heart association) ≥2 for congestive heart failure; 7. Complications that require medication, which may cause severe liver and kidney damage, such as tuberculosis;