

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**

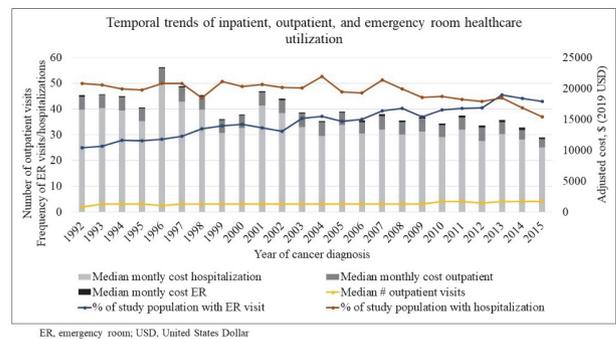
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**Objectives** To describe healthcare system costs and utilization between symptomatic presentation and ovarian cancer diagnosis in the United States.

**Methods** A population-based study of the Surveillance, Epidemiology, and End Results (SEER)-Medicare database was conducted on patients  $\geq 66$  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