mAb showed stronger anti-tumor effect in HFD mouse than that in ND mouse (57.2% and 26.6%, respectively). Metabolomic analysis using HFD and ND mouse serum detected 210 metabolites and The Human Metabolome Database provided comprehensive information of 83 metabolites. Principal component analysis and cluster analysis using these metabolites showed obviously different metabolic properties between ND and HFD mouse. Partial Least Squares-Discriminant Analysis showed significantly high score of lipid metabolites in HFD mouse including α-Tocopherol and cholesterol.

Conclusions Metabolomics showed the activation of lipid metabolism in HFD mouse and suggested that LSR contributed tumor growth via lipid metabolism.

Objectives The addition of a poly(ADP-ribose) polymerase (PARP) inhibitor as maintenance therapy led to a significant progression-free survival benefit in patients (pts) with newly diagnosed advanced ovarian cancer who were homologous recombination deficiency (HRD) positive detected by Myriad’s myChoice which is economically inaccessible for a significant fraction of the Brazilian population. We updated the analysis of the distribution of HRD and tumor (t) BRCAm in Brazilian pts using the HRD-One test that detects not only sequence variants in genes involved in homologous recombination repair (HRR) but also the genomic scars due to HRD.

Methods The accuracy of the HRD-One score was established both by correlation with Myriad’s myChoice score and an internal validation considering that most of the samples that carry a pathogenic variant in BRCA1 or BRCA2 should have HRD. We then tested stage III and IV HGSOC and high-grade endometrioid ovarian cancer pts’ tumor samples with the HRD-One test that detects not only sequence variants in genes involved in homologous recombination repair (HRR) but also the genomic scars due to HRD.

Results Of the 616 pts, 304 (49%) had HRD positive tumors, 277 (45%) were HRD negative, and 35 (6%) had inconclusive results. 128 pts had tBRCAm, 127 (99%) of them had a BRCAm. BRCA1c.5266dupC was the most prevalent BRCAm in Brazilian pts using the HRD-One test that detects not only sequence variants in genes involved in homologous recombination repair (HRR) but also the genomic scars due to HRD.

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Conclusions Metabolomics showed the activation of lipid metabolism in HFD mouse and suggested that LSR contributed tumor growth via lipid metabolism.

EP284/#1118 DISTRIBUTION OF HOMOLOGOUS RECOMBINATION DEFICIENCY AND BRCA MUTATIONS DETECTED BY HRD-ONE TEST AMONG BRAZILIAN PATIENTS WITH NEWLY DIAGNOSED EPITHELIAL OVARIAN, FALLOPIAN TUBE, OR PERITONEAL CANCER

1Mariana Scaranti, 2Guilherme Lopes Yamamoto, 2Rodrigo Guaraci Sousa, 2Ana Carolina J Paniza, 2Fernanda Milanzei, 2Cristovam Scapulatempo-Neto, 2Hospital 9 de Julho/DASA, Centro De Oncologia, São Paulo, Brazil, 2Gene One/DASA, Patologia, São Paulo, Brazil

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Abstracts

EP285/#110 CIRCULATING T-CELL RECEPTOR DIVERSITY AS PROGNOSTIC BIOMARKER FOR PARP INHIBITORS MAINTENANCE THERAPY IN HIGH-GRADE SEROUS OVARIAN CANCER

1Tong Shu*, 2Hong Zheng, 2Yurong Gao, 2Min Gao, 2Zhipeng Zhou, 2Jing Bai, 1Beijing Cancer Hospital & Institute, Gynecologic Oncology, Beijing, China; 2Geneplus-Beijing Institute, Bioinformatics Analysis, Beijing, China

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Objectives T-cell receptor (TCR) repertoire diversity is getting increasing attention as prognostic biomarker in cancer patients. However, the characteristics of the TCR together with its prognostic significance and impact on high grade serous ovarian cancer (HGSOC) patients receiving poly (ADP-ribose) polymerase (PARP) inhibitor maintenance therapy remain unknown.

Methods We investigated the TCR repertoire diversity by high-throughput sequencing in peripheral blood samples from 27 patients at three timepoints of each case before, one month and three months after the exposure to PARP inhibitors respectively.

Results Our results revealed that PARP inhibitors could maintain the stability of TCR repertoire compared to the untreated cases in the maintenance setting. And the rising trend of TCR repertoire diversity in blood after 3-month PARPi maintenance was associated with a longer PFS while low repertoire diversity change was linked with poor prognosis. Furthermore, the significant reduction of the high-frequency clone of TCR was found to be the leading characteristic and hold the potential to be a prognostic biomarker for PARP inhibitors maintenance therapy in HGSOC.

Conclusions Interestingly, we found the dynamic monitoring of circulating TCR repertoire diversity has predictive value on the benefit of PARP inhibitor maintenance therapy in high-grade serous ovarian cancer.

EP286/#91 EXPRESSIO N OF CD44+/CD24−, RAD6 AND DDB2 IN CHEMORESISTANCE OVARIAN CANCER

Unedo Sihombing*, Andriyono Andrijono, Dzicky Fuady, Universitas Indonesia, Obstetrics Gynecology, Central Jakarta, Indonesia

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Objectives Ovarian cancer is one of the deadliest women cancers around the world with many cases of chemoresistance after cytoreductive surgery and platinum-based chemotherapy. The overexpression of Cancer Stem Cells (CSCs) CD44+/CD24−, RAD6, and underexpression of DDB2 are believed to be associated with chemoresistance. We aimed to analyze the expression of CD44+/CD24−, RAD6 and DDB2 in chemoresistance ovarian cancer tissue and patients’ blood circulation.

Methods This study was conducted with an ambispective cohort of 32 people in each group with a total of two groups at the Obstetrics-gynecology and pathology clinic, pathology anatomy department of Cipto Mangunkusumo, Tarakan, Dharmais, and Fatmawati Hospital. All suspected ovarian cancer patients underwent cytoreductive surgery and histopathological examination. Chemotherapy was given for