Results

Unsupervised hierarchical clustering of 252 AOIs showed 5 distinct clusters. PanCK+ AOIs with ‘immune-like (C1-c)’ (100%) and ‘fibronectin-high (C2-a)’ (45.3%, Chi-square p=2.8E-04) features were associated with OCCC recurrence. Tumor infiltrating immune cells (TIIs) have higher frequencies in PanCK segments with ‘immune signal high (C1-b)’ (45%, Chi-square: p=0.046) and ‘immune-like’ (25%, Chi-square p=0.046) features. Correlating with morphology, tumor samples with recurrence showed higher frequency (54.7%, Chi-Square p =1.01E-04) of papillary pattern. Plus, ROIs with papillary pattern have extremely high frequency (100%) of PanCK segments of ‘immune-like’ feature, higher frequency (65.2%, Chi-Square p=4.99E-04) of TIIs, and macrophage lineage immune mimicry with high intensity of CD68.

Conclusion/Implications

Spatial profiling of early-stage OCCC tumors revealed that immune mimicry of tumor cells, the presence of TIIs, and papillary pattern in morphology were associated with recurrence.

AS11. Ovarian cancer

DISTINCT VAGINAL MICROBIOME OVARIAN CANCER PATIENTS – A POSSIBLE SCREENING AND PROGNOSTIC BIOMARKER?


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Introduction Microbiome plays an important role in development of cancer and response to chemotherapy. We aim to examine the significance of vaginal microbiome in epithelial ovarian cancer.

Methods A prospective cohort study was conducted for evaluating the vaginal microbiome in newly diagnosed epithelial ovarian cancer (NEOC) patients, post-chemotherapy (PC) patients and healthy women. Samples were collected using a swab. DNA was extracted and amplified by PCR using universal primers of the prokaryotic 16S ribosome. Next-generation sequencing and taxonomical classification was then performed.

Results Vaginal swab samples were collected from 21 NEOC patients, 27 PC and 22 controls. The microbiome analysis revealed statistically significant findings. Clostridiales bacterium S5 A14a and Anaerovoracaceae family were found to be abundant in patient who had previous malignancies (p<0.01). Clostridiales bacterium S5 A14a was also abundant in patient who had no pregnancies in the past (p<0.001). Clostridia UCG 014 family was found prominent in patient who died of disease (p<0.01).

Conclusion/Implications We demonstrated a significant difference in vaginal microbiome in EOC patients who had a history of other malignancies. Interestingly, the Clostridiales species that are prominent are studied as a risk factor for developing tumors in PTEN carrier and Anaerovoracaceae was linked to esophageal cancer. We also demonstrated Clostridia UCG 014 abundance in patients that died of disease, a finding that was previously shown in mice studies and in patients with lung cancer. This may suggest a group of patients that can benefit from microbiome mapping as a screening tool and as a marker for poor prognosis.

Introduction Improved overall survival (OS) with PARP inhibitors maintenance therapy in platinum-sensitive relapsed ovarian cancer (PSROC) was not determined. We performed treatment-free survival (TFS) with quality-adjusted OS analyses to measure their effects.

Methods We pooled available data for TFS analysis from three trials (Study 19, SOLO2, and ARIEL3). OS was divided into time on protocol treatment exposure (T), time to subsequent treatment initiation or death (TFS), and time after the first subsequent therapy or death (REL). TFS with quality-adjusted OS analyses were calculated by multiplying mean time in each health state by its assigned utility (quality-adjusted OS = u × T + TFS + uREL × REL) for two cohorts: all (BRCAm, BRCAx, or unknown) or BRCAm patients, the area under each KM curve estimated using restricted mean time with threshold utility analyses.

Results Restricted mean treatment duration was longer with PARP inhibitors than with placebo (all patients: 16.3 vs. 7.4 months, difference, 8.9 months, 95%CI 8.1–9.7; BRCAm: 17.1 vs. 8.1 months, 9.0, 8.1–9.9). Mean TFS was longer with PARP inhibitors (7.9 months) than with placebo (4.3 months; difference, 3.6, 2.0–5.1) among BRCAm patients. REL was longer with placebo (all patients: 11.7 vs. 20.5 months, -8.8, -10.1 to -7.6; BRCAm: 8.9 vs. 19.7 months, -10.8, -12.5 to -9.0). PARP inhibitors provided more quality-adjusted OS than placebo with a wider range of utility-weight values for BRCAm patients (-6.0 to +7.0 months) rather than all patients (-7.0 to +5.0 months).

Conclusion/Implications BRCAm patients rather than all-patients population benefited from PARP inhibitors maintenance therapy in PSROC.

Introduction The aim of NIRVANA-R trial is to investigate the efficacy of niraparib in combination with bevacizumab as a maintenance therapy in platinum-sensitive ovarian cancer patients who were previously treated with a PARP inhibitor (PARPi).

Methods This study includes patients with platinum-sensitive recurrent ovarian cancer who had received at least two previous courses of platinum-containing therapy and had been treated with a PARPi. Patients who had responded to the last platinum regimen are eligible to participate in this study. Forty-four patients will be recruited. All enrolled patients are treated with niraparib and bevacizumab for maintenance therapy until disease progression. The primary endpoint of the study is 6-month progression-free survival (PFS) rate. A Simon