The diagnosis of malignancy wasn't focused on histological features, but on tumor extension, clinical course, and presence of metastases.

Conclusion SCTAT is a rare tumor, usually benign. The diagnosis is based on histological examination. Malignant potential is noted in sporadic forms. Surgery remains the corner stone of the treatment which is most often conservative, based on oophorectomy.

IGCS20_1182

189

HIGH-RESOLUTION SPATIAL ANALYSIS OF THE TUMOUR MICROENVIRONMENT OF HIGH GRADE SEROUS OVARIAN CANCER (HGSOC) USING SINGLE CELL TRANSCRIPTOMICS

J Lim*, T Parry, C Gourley. *Cancer Research UK Edinburgh Centre, UK*

10.1136/ijgc-2020-IGCS.164

Introduction High grade serous ovarian carcinoma (HGSOC) is a highly lethal gynaecological malignancy. Bulk gene expression profiling has identified novel subgroups of HGSOC but only interrogates the average signal of cells within a tumour. Single cell RNA-sequencing (sc-RNAseq) enables the quantification of gene expression from individual cells, allowing assessment of potential chemoresistant tumour cells. To investigate the heterogenous landscape of HGSOC, we used sc-RNAseq to profile 80,000 cells from six tumour specimens. Here we present a high-resolution spatial analysis of the HGSOC tumour microenvironment (TME) with further demonstration of the cellular subclonal phenotypes.

Methods Two patients with advanced stage HGSOC who were undergoing primary debulking surgery were recruited. Fresh tumour samples obtained from primary and metastatic sites were dissociated into single cells by automated enzymatic technique and sc-RNAseq performed using 10X Genomics. Sequenced libraries were analysed using bioinformatics tools including clustering, principle component analysis and geneset enrichment analysis.

Results The TME is comprised of cancer epithelial cells (CECs), fibroblasts, endothelial, myeloid, T-cells and B-cells with heterogeneous proportions across individual tumour samples. CECs subclustering revealed subpopulations of tumour cells related to epithelial-mesenchymal transition, oxidative phosphorylation and immunosuppression. We found functional programmes of cancer-associated fibroblasts (CAFs) including matrixome, proliferative and immunomodulatory. The immune cells were largely comprised of T-cells with a predilection for CD8+ T-cells and natural killer cells.

Conclusion Our work enriched the single cell repertoire of HGSOC transcriptomic landscape and unravelled the heterogeneous subpopulations of CECs, CAFs and immune cells which will provide a platform for identification of novel therapeutic targets.

IGCS20_1183

190

SELECTING PATIENTS FOR 3RD LINE CHEMOTHERAPY AND BEYOND IN EPITHELIAL OVARIAN CANCER

¹A Seol*, ¹M Lee, ²G Yim. ¹Department of Obstetrics and Gynecology, Seoul National University Hospital, South Korea; ²Department of Obstetrics and Gynecology, Dongguk University Ilsan Hospital, South Korea

10.1136/ijgc-2020-IGCS.165

Background Many epithelial ovarian cancer (EOC) patients had disease progression during 3rd line chemotherapy and beyond. This study aimed to select these patients and avoid unnecessary chemotherapy.

Materials and Methods We retrospectively analysed 274 EOC patients who had treated with 2nd to 5th chemotherapy. Progression-free survival (PFS) and disease control rate (DCR), and prognostic factors for each line were analysed.

Result The median PFS was shorter as the line of chemotherapy increased (median PFS of 2nd regimen, 9.0 months, vs. median PFS of 3rd regimen, 6.1 month, vs. median PFS of 4th regimen, 3.9 months, vs. median PFS of 5th regimen, 3.4 months). The DCR was lower as the line of chemotherapy increased (DCR of 2nd regimen, 66.7% vs. DCR of 3rd regimen, 48.2% vs. DCR of 4th regimen, 31.3%, vs. DCR of 5th regimen, 20%). Platinum-sensitive EOC patients were significantly effective with 3rd, 4th, or 5th line chemotherapy ($p=0.006$). 3rd or more line chemotherapy was effective in patients with treatment free interval (TFI) over 3 months in previous chemotherapy ($p=0.014$). CA-125 at recurrence over 200 was statistically related to poor prognosis ($p=0.002$). Endometrioid cell type had significantly better outcomes than other cell type ($p=0.01$). Other factors were not significantly different.

Conclusion EOC patients with platinum resistance, elevated CA-125 at recurrence, short TFI at previous regimen, and non-endometrioid cell type were associated with progression disease after 3rd line chemotherapy or beyond. Discontinuation of 3rd line chemotherapy and beyond should be carefully considered when EOC patients have the factors above mentioned.

IGCS20_1185

191

CLINICAL AND PATHOLOGICAL CHARACTERISTICS OF PATIENTS WITH VILOGLANDULAR ADENOCARCINOMA OF THE CERVIX: A REVIEW OF 11 CASES

PRB Marcos*, T de Melo Passarini, RM de Sousa Lima, LG Ladeira, FR Paes, PR Santos, GG Jacob, CC Tavares. *OncBio, Brazil*

10.1136/ijgc-2020-IGCS.166

Introduction Villoglandular adenocarcinoma (VGA) is a rare subtype of cervical adenocarcinoma (3.7 to 4.8%). Risk factors for poor prognosis such as Lymphovascular invasion (LVI) and lymph node metastasis are associated with recurrence and