

**Conclusions** VEGF and malondialdehyde can be used as prognostic factors and can predict platinum resistance.

## IGCS19-0107

### 277 DETECTION OF ANDROGEN RECEPTOR INCIDENCE IN GYNAECOLOGICAL CANCERS AND ITS RELEVANCE IN HIGH GRADE SEROUS EPITHELIAL OVARIAN CANCERS

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**Objectives** The aim of this study is to estimate the incidence of expression of androgen receptor (AR) in gynaecological cancers and association of expression of AR status with stage, cytoreduction and progression free survival in high grade epithelial ovarian cancers.

**Methods** This is a prospective observational study of 20 months duration, conducted in department of gynaecological oncology at AIMS, Kochi. The study group comprised of 99 consecutive gynaecological cancers between 2016 and 2018 in whom immunohistochemical staining for AR was done in tissue samples. Results were analysed using IBM SPSS version 20.0, Pearson Chi square test was used.

**Results** In the course of our study, ARs were differently expressed in different histotypes of gynaecological cancers cancer (n=99) AR expression is 45% (n=9/20) of 20 carcinoma endometrium, 9.1% (n=1/11) cases in cervical cancers and 100% in sarcoma and ovarian cancers 40.6% (n=64), more highly expressed in HGSC 61.5% (n=41/64) but its association with AR is not statistically significant (p=0.78). Of note, all of the HGSC samples AR expression was associated with neither stage, cytoreduction of EOC nor progression free/overall survival. AR-positivity was associated with improved OS, and AR negativity was associated with recurrence but not reaching a statistical significance.

**Conclusions** An effective and clinically applicable molecular classification of HGSC can be grouped in our cohort based on ER, PR and AR receptor status and observed that PR positive subgroup were younger compared to the other groups and recurrences were more with the PR absent subgroup and both being statistically significant. Study describes patterns of AR expression in a spectrum of cancers, and potential to exploit this knowledge in clinical therapeutic setting.

## IGCS19-0108

### 278 CLINICOPATHOLOGICAL CHARACTERISTICS AND PREDICTORS OF RECURRENCE IN BORDERLINE OVARIAN TUMOURS: A RETROSPECTIVE SINGLE CENTRE STUDY AT A TERTIARY CARE HOSPITAL IN SOUTH INDIA

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**Objectives** Borderline ovarian tumors (BOT) are an intermediate form of neoplasia, between benign and malignant. The

aim of this systematic review is to evaluate clinico-pathological characteristics profile of borderline ovarian tumors, results of conservative management, determine the predictors of recurrence estimate the proportion of malignant transformation in recurrent borderline ovarian tumours (BOTs).

**Methods** Retrospective review of all patients diagnosed, treated and followed up for BOTs between 2010 and 2017 were identified through the Gynaecology Oncology database. Details of management, outcome and survival were retrieved and data were analyzed descriptively and for survival.

**Results** A total of 103 patients were identified. During the median follow-up of 46.0 months (IQR: 23.0 - 74.0), 15 patients (14.56%) developed recurrent disease, 6 (40%) had recurrent disease with progression to invasive carcinoma, and 9 (60%) had recurrent disease with borderline or benign histology. Disease-related deaths (4/103; 3.88%) were observed only in patients with progression to invasive carcinoma. Univariate analysis, indicated that type of surgery and the fertility sparing surgery were statistically significant in affecting survival.

**Conclusions** Borderline ovarian tumors have excellent prognosis and a very low overall risk of recurrence, however the risk of progression to invasive carcinoma and death remains thereby. Fertility sparing surgeries and incomplete staging were associated with higher risk of recurrence. Conservative surgery is a safe option for preserving fertility when appropriate information is given about increased risk of recurrence and necessary longer follow up. Clinicians should pay closer attention to BOT patients with these predictors of recurrence and there is a need for more careful surveillance.

## IGCS19-0080

### 279 PREDICTIVE FACTORS OF POSTOPERATIVE COMPLICATIONS AFTER CYTOREDUCTIVE SURGERY FOR OVARIAN CANCER

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**Objectives** Ovarian cancer is the leading cause of death from gynecological cancer for women. The standard treatment consists of an extensive cytoreductive surgery followed with adjuvant chemotherapy. This study aims to identify the common postoperative complications as well as to define predictive factors of their occurrence.

**Methods** This study was conducted at Hôtel-Dieu University Hospital in Lebanon between October 2017 and October 2018. All patients older than 18-year-old who underwent cytoreductive surgery for ovarian cancer were followed up from the postoperative admission in the intensive care unit till discharge from hospital or at least for 30 days. Correlations between perioperative characteristics and complications were searched and analyzed.

**Results** 40 patients were included. The mean age was 55 years old. The mean surgical complexity score was 5. Major

complications have occurred in 32% of cases. They were associated with neoadjuvant chemotherapy ( $p = 0.009$ ), elevated surgical complexity ( $p = 0.037$ ), need for intraoperative transfusion and stay at intensive care unit more than 48 hours ( $p = 0.05$ ). Complications were infectious, hemodynamic, pulmonary, digestive and surgical. Need for parenteral nutrition was significantly correlated with longer operative time and neoadjuvant chemotherapy. No correlation was found between occurrence of complications and the following parameters: age, stage, APACHE II score, Charlston Comorbidity index and preoperative albuminemia.

**Conclusions** Cancer stage, neoadjuvant chemotherapy, high surgical complexity, need for transfusions, delayed extubation and stay at intensive care unit more than 48 hours were predictive factors of higher postoperative morbidity in patients receiving cytoreductive surgery for ovarian cancer.

## IGCS19-0159

### 280 TP53 DOMAINS' MUTATIONS ALTER GLYCOLYSIS IN EPITHELIAL OVARIAN CARCINOMA: EX-VIVO AND IN VITRO STUDY

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**Objectives** To investigate the effect of TP53 different domain mutations on its transcriptional activity, its ability to induce apoptosis and to regulate glucose consumption and lactate production in epithelial ovarian cancer

**Methods** 30 ovarian cancer biopsies were characterized. Viability and Annexin V tests were performed to study the ability of mutant p53 to induce apoptosis. The expression of the glycolytic enzymes regulated by p53 was quantified by qPCR. SK-OV-3 cell line was transfected by different p53 mutated plasmids, and the same experiments performed on the biopsies were done on transfected cells.

**Results** 17 out of 22 ovarian cancer cases were characterized as High-Grade Serous Carcinoma. Out of these 17, mutations were detected in 9 of the cases. 8 patients showed mutations affecting the apoptosis domain of the gene (exons 2, 3 and 4). The immunohistochemistry and qPCR showed an approximately 2 folds increase in p53 expression between wild type and mutated cases. The expression of p21 and MDM2 decreased only in DNA binding domain mutated cases and transfected cells, which indicates a decreased transcriptional activity with this type of mutation. The highest increase in apoptosis induction was clear in Sk-Ov-3 cells transfected with WT p53, and p53 proline rich domain mutations decreased the protein's apoptotic function. Glucose consumption and lactate production increased by mutated cells compared to wild type.

**Conclusions** Mutant p53 is overexpressed in ovarian cancer cells. DNA binding domain mutations modify the protein's transcriptional activity, whereas proline rich domain mutations decrease the protein's apoptotic activity. Glycolysis is affected differently in both types.

## IGCS19-0210

### 281 CHARACTERISTICS OF OVARIAN TUMORS IN LEBANON: 20 YEARS OF EXPERIENCE IN A LEBANESE TERTIARY CENTER

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**Objectives** To report the epidemiological and histological features of ovarian tumors in Lebanon

**Methods** This is a retrospective study evaluating the characteristics of borderline and malignant ovarian tumors diagnosed in 20 years (from 1997 to 2017) at the Hôtel Dieu de France, University Hospital of Saint Joseph University in Beirut in Lebanon. The data was extracted from the computerized registers of the hospital's pathology laboratory. Statistical analysis was performed using SPSS 24.0 software.

**Results** 1137 ovarian lesions were reported, of which 695 (61.12%) were benign, 50 (4.4%) borderline, 361 (31.75%) malignant and 31 (2.73%) were unspecified. Of the 361 malignant lesions, 54 (4.75%) were metastases from another extra-ovarian primitive. Of the 652 benign neoplastic ovarian tumors, epithelial tumors, stromal and sex cords tumors, germ cell tumors and tumors from the dermoid cyst were 306 (46.93%), 70 (10.73%), 268 (41.1%).% and 8 (1.24%). The most common benign neoplastic tumor was mature cystic teratoma representing 268 cases (41.1%), followed by 170 (26.07%) serous cystadenomas, and 80 (12.2%) mucinous cystadenomas. Of the 361 malignant ovarian tumors, 246 (68.1%) were malignant surface epithelial tumors. Germ cell malignancies, stromal tumor and sex cords, and metastatic carcinoma were 25 (6.9%), 22 (6.1%), and 54 (15%), respectively. High grade serous cystadenocarcinoma was the most common malignant tumor with 147 cases (40.7%).

**Conclusions** The epidemiological characteristics of ovarian tumors in Lebanon are compatible with those published in Western countries and in Asia. This study is the first of its kind in Lebanon and is a database for further research

## IGCS19-0238

### 282 OVARIAN METASTASES FROM BREAST CANCER: SERIES OVER A 20-YEARS PERIOD AT A LEBANESE TERTIARY CARE CENTER

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**Objectives** To report the characteristics and outcomes of patients presenting ovarian metastases from a breast cancer.

**Methods** It is a retrospective study reviewing the characteristics of ovarian metastases from a breast cancer diagnosed in 20 years (from 1997 to 2017) at Hôtel-Dieu de France University hospital, a tertiary care center in Lebanon.