

at caesarean section sterilisation, vaginal hysterectomy and for sterilisation respectively. Those against state fertility concerns, lack of evidence and increased complications.

**Conclusions** There are still significant gaps in knowledge regarding STIC among consultants in Northern Ireland, which affects their willingness to consider opportunistic salpingectomy at the time of other operations. If these gaps and their concerns are addressed, there may be an impact on the potential benefit of performing this procedure in reducing the incidence of HGSC.

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## IGCS19-0138

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### A PROSPECTIVE STUDY OF FACTORS PREDICTING MORBIDITY AND MORTALITY IN CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY FOR ADVANCED EPITHELIAL OVARIAN MALIGNANCY

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**Objectives** The risk of morbidity and mortality associated with CRS & HIPEC is substantial enough to make any surgeon think twice before adopting it. Knowing the factors that will predict morbidity would help us optimize outcomes & improve care. This study is an attempt to find such factors that predict morbidity.

**Methods** Patients diagnosed of peritoneal carcinomatosis from epithelial ovarian malignancy underwent CRS+ HIPEC from March 2012 to December 2017. All data prospectively entered in the HIPEC registry was analysed with main focus on morbidity and factors predicting morbidity.

**Results** Out of 110 patients, 20, 55, 35 underwent upfront, interval & secondary CRS+HIPEC respectively. Mean duration of surgery was 9.5 hours, blood loss 1250 mL & PCI 17. Total, upper & pelvic peritonectomy with glissons capsulectomy & mesenteric stripping was done in 42.5%, 68.1%, 69.3%, 14.7% & 4.3% respectively. Multivisceral, diaphragmatic & bowel resections were done in 20.9%, 40.5% & 57.5% respectively. G3-G5 morbidity was noted in 40%, major being surgical 30%, hematological 20%, electrolyte imbalances 19%. Performance status, mean PCI >14, duration of surgery >10 hours, multivisceral resections, upper quadrant peritonectomy & more than one anastomosis were found to be significant factors predicting morbidity on univariate analysis. On multivariate analysis performance status & upper quadrantectomy were significant factors.

**Conclusions** CRS + HIPEC for advanced epithelial ovarian malignancy can be done with acceptable morbidity & mortality. A dedicated team is an absolute necessity. We should be more cautious & give extra attention to patients with above mentioned risk factors to improve the quality of care & optimize outcomes with CRS+ HIPEC.

## IGCS19-0608

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### LARGE SINGLE-SITE INSTITUTION EXPERIENCE OF TESTING FOR SOMATIC AND GERMLINE CONCORDANCE BRCA1/2 PATHOGENIC MUTATIONS IN OVARIAN CANCER PATIENTS ELIGIBLE FOR PARP INHIBITORS THERAPY

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**Objectives** The aim of the study was to investigate the rate of concordance of germline BRCA1/2 (gBRCA1/2) with somatic BRCA1/2 (sBRCA1/2) pathogenic mutations to increase screening uptake for prescription of the newly NICE approved PARP inhibitor tablets available for gBRCA and sBRCA mutation carriers.

**Methods** 70 patients diagnosed with ovarian cancer were screened: 50 with High Grade Serous Carcinoma (HGSC), 2 Low Grade Serous Carcinoma (LGSC), 4 Clear Cell Carcinoma (CCC), 2 Carcinosarcoma, 11 Endometrioid Adenocarcinoma (EdAd) and 1 mucinous carcinoma. Patients were tested for BRCA1/2 germline mutations upfront, followed by testing of tumour specimens for somatic mutations using NGS.

**Results** 9 cases had gBRCA1/2 pathogenic mutations: 5 HGSC had gBRCA1, 3 HGSC and 1 EdAd had gBRCA2. 7 cases had sBRCA1/2 mutations: 4 gBRCA1 and 3 gBRCA2 HGSC had sBRCA1 and sBRCA2 respectively. EdAd gBRCA had no somatic mutations; 1 HGSC patient with gBRCA had no sBRCA mutations. 1 HGSC wild-type gBRCA showed pathogenic sBRCA1 frameshift mutation. 2 EdAd and 1 CCC wild-type gBRCA showed sBRCA1/2 mutations of unknown clinical significance. LGSC, carcinosarcomas and mucinous carcinoma were wild-type gBRCA with no somatic mutations detected.

**Conclusions** Detection of both germline and somatic BRCA1/2 mutations is required for effective PARP inhibitors treatment. Somatic tests should be offered to increase the number of patients suitable for targeted therapy. The consistency of gBRCA uptake (13%) was in keeping with published data, whereas the sBRCA uptake was 11.4%, which is less than the expected 15%. More research into cases with sBRCA1/2 mutations of unknown clinical significance is warranted.

## IGCS19-0198

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### DIFFERENTIAL EXPRESSION OF SOCS3 GENE AND ITS PUTATIVE ROLE IN THE PATHOGENESIS OF EPITHELIAL OVARIAN CANCER

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**Objectives** The SOCS3 gene is a key regulator for JAK/STAT pathway, responsible for inflammation and proliferation response, was found to be regulated by *E2F5* and its down

regulation seems to have a role in the pathogenesis of different tumors including gastric and pancreatic cancers.

Our aim to investigate the involvement of *SOCS3* gene in EOC by monitoring its expression in ovarian cancer cell lines and EOC tissue samples, then to compare results to normal ovarian tissue samples. We also examine methylation status of both, ovarian cell lines and ovarian tissue specimen.

**Methods** Real time qPCR was used to assess gene expression using Taq Man gene expression assay. Five cell lines (MCAS, OVSAHO, OV 2008, A2780s and A2780cp) and 19 tissue samples with different histopathology types (6 normal, 4 benign, 5 borderlines and 4 high grade serous) were examined. Methylation status analysis was performed by methylation specific PCR

**Results** OVSAHO, OV2008 and A2780s cell lines showed down regulation of *SOCS3* expression when compared to normal. Benign, borderline and high grades samples, displayed also significant down regulation of *SOCS3* expression. Analysis of methylation pattern showed no hyper-methylation in both cell lines and tissues.

**Conclusions** Down regulation of *SOCS3* gene expression was detected in ovarian cancer cell lines and EOC tissue samples, suggesting a putative role of *SOCS3* in the pathogenesis of EOC. Other epigenetics mechanisms such as micro-RNAs are involved in the regulation of *SOCS3* expression in addition to hyper-methylation and therefore, further study is needed to uncover these mechanisms.

## IGCS19-0617

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### CYTOREDUCTIVE SURGERY PLUS HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY FOR THE MANAGEMENT OF PERITONEAL CARCINOMATOSIS FROM OVARIAN CANCER: A PRELIMINARY SINGLE-CENTER EXPERIENCE FROM SAUDI ARABIA

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**Objectives** To report our preliminary single-center experience with cytoreductive surgery (CRS) plus hyperthermic intraperitoneal chemotherapy (HIPEC) in the management of peritoneal carcinomatosis (PC) arising from ovarian cancer.

**Methods** From 2016–2018, 23 patients underwent CRS +HIPEC. CRS was performed with standard peritonectomy procedures and visceral resections directed toward complete elimination of tumors. HIPEC was performed with either cisplatin (50 mg/m<sup>2</sup>) plus doxorubicin (15 mg/m<sup>2</sup>), or single-agent cisplatin (100 mg/m<sup>2</sup>), and allowed to circulate in the abdominopelvic cavity for 90 min at 41.0–42.2°C.

**Results** Almost all PC cases were primary disease presentations (61.9%) and had high-grade papillary serous histology (90.5%). Cytoreduction completeness (CC-0/1) was achieved in all patients with a median peritoneal cancer index (PCI) of 12±6.3 (range: 3–30). Combination cisplatin+doxorubicin HIPEC chemotherapy was used in 14 patients (66.7%). The median estimated blood loss and hospital stay were 1200 ±350 mL (range: 800–4500) and 14±5.7 days (range: 8–47), respectively. Major postoperative Clavien-Dindo grade III/IV complications occurred in 3 patients (14.3%), and none developed HIPEC chemotherapy-related toxicities. The median

overall survival (OS) and disease-free survival (DFS) after CRS +HIPEC were 18±2.4 and 9.8±3.2 months, respectively. The median follow-up time was 13 months (range: 8–42). In a univariate analysis, patients with CC-0, <12 PCI score and primary PS presentation had statistically higher median 5-year DFS and OS (P<0.05). In a multivariate analysis, CC-0 was shown to be an independent significant prognostic factor for OS (P<0.05).

**Conclusions** CRS+HIPEC appears to be feasible, safe, and yields survival oncological benefits in patients with PS originating from ovarian cancer.

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### MIXED GERM TUMOR WITH YOLK SAC TUMOR AND MATURE TERATOMA – CASE REPORT AND LITERATURE REVIEW

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**Objectives** This study aims to report a case of mixed germ cell tumor in patients treated at the National Cancer Institute (INCA) in the city of Rio de Janeiro - Brazil

**Methods** Physical record review and literature review.

**Results** Germ cell tumors are rare and have highly malignant subtypes, such as the endodermal sinus tumor. In the present case: a female patient, 18 years old, referred to INCA after being submitted to surgical excision in another hospital, an initial diagnosis of stage IV ovary embryonal carcinoma. After evaluation, chemotherapy (BEP - bleomycin, etoposide and cisplatin) was chosen. In spite of the systemic treatment, the lesions progressed leading to patient clinical worsening (decrease of the general state and increase in ascites). Discussed case in clinical meeting and deliberate surgical rescue. 26/02/2019: Pelvic mass resection with approximately 30 kg, right annexectomy and resection of satellite lesions in the pelvis, peri-splenic, omentum and hepatic nodulectomy of 3.5 cm in segment VII. The freezing biopsy found mucinous neoplasia



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