



Abstract 2022-RA-1063-ESGO Figure 1

**Conclusion** In addition to the nephroprotective benefit, ST also appears to be associated with better cytoreduction results. Hyperhydration does not provide any additional benefit.

#### 2022-RA-1064-ESGO UNRESECTABLE PERITONEAL METASTASES FROM STAGE III OVARIAN CANCER TREATED WITH BIDIRECTIONAL APPROACH OF PRESSURIZED INTRAPERITONEAL AEROSOL CHEMOTHERAPY (PIPAC) AND SYSTEMIC CHEMOTHERAPY MAY LEAD TO SECONDARY COMPLETE CYTOREDUCTIVE SURGERY: A PILOT STUDY

<sup>1</sup>Amaniel Kefleyesus, <sup>1</sup>Vahan Kepenekian, <sup>2</sup>Isabelle Bonnefoy, <sup>3</sup>Julien Peron, <sup>3</sup>Benoit You, <sup>1</sup>Olivier Glehen, <sup>1</sup>Naoual Bakrin. <sup>1</sup>Department of Surgical Oncology, Lyon University Hospital, Pierre-Bénite, France; <sup>2</sup>Department of Clinical Research, Lyon University Hospital, Pierre-Bénite, France; <sup>3</sup>Department of Medical Oncology, Lyon University Hospital, Pierre-Bénite, France

10.1136/ijgc-2022-ESGO.622

**Introduction/Background** Ovarian cancer (OC) is the leading cause of death among women diagnosed with gynaecological cancer. The natural course of the disease is progression to peritoneal metastases (PM), a high rate of platinum chemoresistance, and a low overall survival rate, with no effect of a screening system. This background explains the interest in locoregional treatment of peritoneal disease which has shown a benefit in terms of overall and progression-free survival for selected patients treated with complete cytoreductive surgery. This pilot study aimed to investigate the feasibility and safety of secondary complete cytoreductive surgery after a bidirectional treatment of Pressurized IntraPeritoneal Chemotherapy (PIPAC) and systemic chemotherapy.

**Methodology** A retrospective single-tertiary-center pilot study with unresectable stage III serous ovarian cancer patients treated by induction chemotherapy based on carboplatin and paclitaxel combined with a minimum of 3 PIPAC, between May 01, 2019 and October 30, 2021. All patients had a diagnostic laparoscopic exploration. After 3 cycles of

chemotherapy PIPAC was initiated if unresectable disease without extraperitoneal metastases including loco-regional lymphadenopathy. Resectable disease after 3 cycles of bidirectional treatment was eligible for CRS. Hyperthermic IntraPeritoneal Chemotherapy (HIPEC) was done after complete CRS without the residual disease.

**Results** All patients completed at least 3 PIPAC (n=7, 89%) in a bidirectional approach, and one patient had completed 4 PIPAC. Most patients (n=6, 75%) were secondarily treated by CRS-HIPEC. In two patients the disease remained unresectable and had to be changed for second-line chemotherapy. Median PCI during surgery was 17 (IQR 2.3). The postoperative course was uneventful regarding severe complications.

**Conclusion** PIPAC is safe and feasible in a neo-adjuvant intent for unresectable ovarian cancer patients and may lead to complete CRS.

#### 2022-RA-1066-ESGO METABOLOMICS SHOWED LSR PROMOTED LIPID METABOLISM IN EOC

<sup>1</sup>Hitomi Sakaguchi, <sup>1</sup>Kosuke Hiramatsu, <sup>1</sup>Yoshikazu Nagase, <sup>1,2</sup>Masashi Funauchi, <sup>1</sup>Kakuda Mamoru, <sup>1</sup>Satoshi Nakagawa, <sup>1</sup>Ai Miyoshi, <sup>1</sup>Eiji Kobayashi, <sup>1</sup>Toshihiro Kimura, <sup>1</sup>Yutaka Ueda, <sup>2</sup>Tetsuji Naka, <sup>1</sup>Tadashi Kimura. <sup>1</sup>Obstetrics and Gynecology, Osaka University, Suita, Japan; <sup>2</sup>Institute for Biomedical Sciences Molecular Pathophysiology, Iwate Medical University, Iwate, Japan

10.1136/ijgc-2022-ESGO.623

**Introduction/Background** Previously, we identified lipolysis-stimulated lipoprotein receptor (LSR) as a new target of epithelial ovarian cancer (EOC), and we reported anti-tumor effect of our newly developed monoclonal antibody (mAb) against LSR-positive EOC cells in vitro and in vivo. We also demonstrated that in high-fat diet (HFD) mouse, anti-LSR mAb showed strong anti-tumor effect. In this study, we performed metabolomic analysis using HFD mouse serum and analyzed metabolic pathway of EOC via LSR.

**Methodology** We established HFD mouse model and evaluated the tumor growth of LSR-positive EOC cell line and anti-tumor effect of anti-LSR mAb in this model. Moreover, we obtained serum samples from normal-diet (ND) and HFD mouse, and performed metabolomic analysis. Finally, we analyzed lipid metabolites profile of HFD mouse compared to ND mouse.

**Results** Tumor growth of LSR-positive EOC cells was significantly promoted in HFD mouse (p < 0.05) and anti-LSR 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 data showed obviously different metabolic properties between ND and HFD mouse. Partial Least Squares-Discriminant Analysis showed significantly high score of lipid metabolites including α-Tocopherol and cholesterol.

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