CHEMOSENSITIVITY IN VULNERABLE OLDER PATIENTS IS UNFAVORABLE AND HIGHLY DEPENDENT ON THE TREATMENT REGIME: CA-125 ELIMINATION RATE CONSTANT K (KELIM) ANALYSIS OF THE GINECO-ENGOT EWOC-1 TRIAL

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Introduction/Background Older patients (pts) with ovarian cancer have a poorer survival,_classically related to suboptimal treatment or excessive toxicities; however histological aggressivity and chemoresistance may contribute to this worse outcome. CA-125 elimination rate constant K (KELIM) was shown to be a robust marker of intrinsic chemosensitivity either in ajuvant or neoadjuvant settings. EWOC-1 trial (NCT02001272) was designed to evaluate the feasibility of three treatment regimens in vulnerable pts aged ≥70 years in first line: pts treated with carboplatin monotherapy (C) had a 2.79-fold higher risk of death compared to carboplatin-paclitaxel (CP). An ancillary analysis of EWOC-1 was designed to evaluate the differential chemosensitivity in the 3 treatment arms using KELIM.

Methodology KELIM calculation was performed according to You et al. (www.biomarker-kinetics.org)”/CA125-neo) on EWOC-1 trial database of 120 pts (40 in each arm: standard CP (arm A); C (arm B); 3w/4 weekly CP (arm C)).

Results KELIM was evaluable for 58 pts (A: 18; B: 22; C: 18), its median [IQR] was 0.76 (0.59; 0.90) in the total population, significantly associated with treatment arms: A: 0.99 [0.71; 1.11]; B: 0.56 [0.32; 0.77]; C: 0.77 [0.50; 0.90], p=0.008; pairwise comparison arm A vs B, p=0.001. Only 15 pts (25.9%) had a favorable (≥1) KELIM, associated with a significant increase in overall survival (HR: 0.240; 95%CI: 0.089–0.645; p=0.002).

Conclusion KELIM values were globally unfavorable in this older population. Chemosensitivity was highly dependent on the treatment regime, with a median KELIM comparable in the standard carboplatin-paclitaxel arm (A) to previously published data on younger patients. These data strengthen the need to avoid under-treatment in the older population. KELIM™ may be considered in older pts as both a marker of intrinsic-(tumor-related) and extrinsic-(treatment-related) chemosensitivity.

THE ROLE OF INTRAOPERATIVE INDOCYANINE GREEN FLUORESCENCE ANGIOPHGRAPHY IN PREVENTING ANASTOMOTIC LEAKAGE AFTER COLORECTAL RESECTION FOR ADVANCED OVARIAN CANCER

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Introduction/Background The use of intraoperative indocyanine green fluorescence angiography (ICG-FA) in the assessment of anastomotic perfusion after bowel resection has been widely increased in the last years. However, few data are available on its use for ovarian cancer surgery. This study aimed to assess the impact of ICG-FA in reducing anastomotic leakage after colorectal resection during primary cytoreductive surgery for advanced ovarian cancer (AOC).

Methodology Patients with AOC who underwent a primary cytoreductive surgery with colorectal resection at the European Institute of Oncology, Milan, from 1/2009 to 12/2021 were retrospectively identified. The use of ICG-FA to assess the anastomotic perfusion was introduced at our institution on 1/2020. The rate of anastomotic leak after colorectal resection was compared between the group using ICG-FA and the group not using ICG-FA. The association between the use of ICG-FA and the occurrence of anastomotic leakage was evaluated with univariate and multivariate statistical analysis.

Abstract 2022-RA-1295-ESGO Table 1

<table>
<thead>
<tr>
<th>Predictor of resection margin anastomotic leak</th>
<th>Univariate analysis</th>
<th>Multivariate analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=306</td>
<td>n=306</td>
</tr>
<tr>
<td>Age (years)</td>
<td>60 (49–70)</td>
<td>60 (49–70)</td>
</tr>
<tr>
<td>Albumin (g/L)</td>
<td>43 (39–48)</td>
<td>43 (39–48)</td>
</tr>
<tr>
<td>Preoperative blood transfusion</td>
<td>5 (6.3%)</td>
<td>6 (10.1%)</td>
</tr>
<tr>
<td>Preoperative platelet count (10^4)</td>
<td>205 (190–270)</td>
<td>205 (190–270)</td>
</tr>
<tr>
<td>Additional small bowel resection (%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Additional large bowel resection (%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Resected Tumor (cm)</td>
<td>29.0 (20.7–34.3)</td>
<td>29.0 (20.7–34.3)</td>
</tr>
<tr>
<td>Surgical time (min)</td>
<td>231 (185–283)</td>
<td>231 (185–283)</td>
</tr>
</tbody>
</table>

Results In total, 439 patients meeting inclusion criteria were included. Among them, in 118 (36.8%) the ICG-FA was used, while in 321 (63.2%) the ICG-FA was not used. Overall, 27/439 (6.1%) patients had an anastomotic leak, including 2/118 (1.69%) in the group using ICG-FA and 25/321 (7.8%) in the group not using ICG-FA. The association between the use of ICG-FA and the occurrence of anastomotic leakage was evaluated with univariate and multivariate statistical analysis.
group not using ICG-FA. On univariate analysis, the presence of residual tumour (p=0.03) and surgical time (p=0.005) were predictors of colorectal anastomotic leakage, while the use of ICG-FA was a protective factor (p=0.02). On multivariate analysis, surgical time (p=0.02) was an independent predictor of colorectal anastomotic leakage, while the use of ICG-FA showed an independent protective role (p=0.01).

Conclusion The use of ICG-FA for the assessment of colorectal anastomosis perfusion has proven to be a safe and effective technique, showing a significant reduction in the rate of anastomotic leakage. This technique should be performed in all cases of ovarian cancer undergoing rectosigmoid resection.

Abstract 2022-RA-1306-ESGO

OVER-EXPRESSION OF MULTIMERIN1 PROTEIN IN OVARIAN CANCER PROGRESSION

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Introduction/Background Asymptomatic nature of ovarian cancer makes it 5th most common cancer worldwide and often called ‘Silent Killer’. Late diagnosis makes it highly dreadful malignancy among women. A non-invasive early screening method will help to reduce its high mortality rate. Multimerin 1 is EMLIN family protein which massive, soluble, disulfide-linked homo-polymeric ECM protein that is expressed in megakaryocytes, platelets and endothelial cells and found associated with different types of cancers including ovarian cancer with undefined role.

Methodology In this context, we performed validation of differential expression patterns for Multimerin1 via: western blotting, ELISA, Immunohistochemistry and RT-PCR in an independent cohort of ovarian cancer saliva and tumor tissues. Cell properties like viability, apoptosis, wound healing, adhesion; migration and invasion were studies by siRNA mediated knockdown of MMRN1 in in-vitro experiments in SKOV3 cell line.

Results Significant over expression of MMRN1 was observed by western blot and ELISA in saliva samples of ovarian cancer patients. Average concentration of MMRN1 in saliva of healthy control was 28.7 pg/ml, whereas 42.53 pg/ml in low grade and 52.91 pg/ml in high grade ovarian cancer. Its over-expression at mRNA level indicates its progression with undefined role.

Conclusion Perceived results indicated that MMRN1 expression increases with disease progression and induce cell proliferation thereby helping in metastasis.

Abstract 2022-RA-1306-ESGO

EFFECT OF THE COVID-19 PANDEMICS ON PRIMARY THERAPY AND ONCOLOGIC OUTCOMES IN WOMEN WITH ADVANCED STAGE TUBO-OVARIAN CARCINOMA IN A TERTIARY CANCER CENTER

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Introduction/Background The COVID-19 pandemic resulted in significant alterations in access to health care services globally. The Norwegian Radium Hospital was declared ‘Covid-free’ to maintain cancer care at the same level as prior to the pandemic. Despite this, concerns regarding possible delayed diagnosis and suboptimal therapy have been raised.

Objective To explore if management and outcomes for women with advanced stage high-grade serous tubo-ovarian carcinoma (HGSC) was altered during the COVID-19 pandemic.

Methodology Women with stage III/IV HGSC from 2017–2021 were identified in our institutional database. Pre-Covid cohort January 2017 – March 2020, and Covid-cohort April 2020 – August 2021. Demographics, treatment characteristics and oncologic outcomes were compared between cohorts.

Abstract 2022-RA-1306-ESGO Figure 1

Abstract 2022-RA-1306-ESGO Table 1

Patient, tumor and treatment characteristics