

surgery) is mandatory. Prognosis is generally excellent. Recurrence is a rare event (6%), but it can occur in the form of invasive disease.

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MIRNA-125B EXPRESSION IN EPITHELIAL OVARIAN CANCER

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Introduction/Background Most (70%) epithelial ovarian cancers (EOCs) are diagnosed late. Non-invasive biomarkers that facilitate early disease detection are needed. The microRNAs (miRNAs) represent a new class of biomarkers whose expression is aberrant in various human cancers and miRNA-125B has been shown to be overexpressed in EOC. This study was conducted to investigate plasma miRNA 125b as a diagnostic biomarkers in EOC.

Methodology A pre-surgical venous blood sample of all patients with clinically diagnosed ovarian tumors and likely to undergo surgery was drawn. After histopathological confirmation of benign or malignant epithelial ovarian tumor of surgically resected specimen, patients were enrolled into the study and their blood sample were further analysed for miRNA-125b expression. Patients with epithelial ovarian cancer on histopathological examination were defined as cases and those with benign pathology report served as controls. Commercial kit were used to isolate RNA including miRNA from serum samples. The RNA were then be reverse-transcribed into cDNA using cDNA synthesis kit as per the manufacturer's protocol. The Ct values of housekeeping U6 snRNA and test mir-125b were used to calculate the delta Ct (Δ Ct) values between test and reference genes in both controls and cases. Delta delta Ct ($\Delta\Delta$ Ct) values between controls and cases were based on difference in Δ Ct values between the two sets. This was used to calculate the exponential difference based on $2^{-\Delta\Delta$ Ct}. The values were normalized and expressed in terms of fold expression relative to controls.

Results We enrolled 20 cases of Epithelial ovarian cancer and 20 cases of benign epithelial ovarian tumor. Real time relative quantification analysis showed more than 12 fold increase in serum miR-125b expression among epithelial ovarian cancer patients than the corresponding benign counterparts.

Conclusion Circulating miRNA-125b has the potential to become a novel biomarker for early diagnosis and prognosis prediction of epithelial ovarian cancer.

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A VALIDATION STUDY OF TWO PRE-OPERATIVE PREDICTIVE MODELS IN THE TREATMENT PLANNING OF ADVANCED OVARIAN CANCER

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Introduction/Background In advanced ovarian cancer (AOC) optimal cytoreductive surgery, <1 cm visible disease (VD), is

associated with improved survival. Survival rates in patients with a suboptimal cytoreduction are equivocal. Surgery can be extensive and associated with significant morbidity and mortality. Tumour resectability and patient co-morbidity affect treatment planning. Pre-operative predictive models may provide an objective measure to aid this decision-making process. This study aimed to externally validate the ability of two pre-operative predictive models (Sudan et al 2014, 2017) to determine the likelihood of suboptimal cytoreductive surgery (>1 cm VD) and any residual disease in the treatment of AOC in a London teaching hospital.

Methodology Between January 2018- June 2020, 236 patients were treated for AOC in a London Teaching Hospital. 145 had cytoreductive surgery. 6 had incomplete records and were excluded. Suidan et al (2014, 2017) model's resectability score 1 (RS1) (suboptimal cytoreduction) and resectability score 2 (RS2) (any residual disease) were used to score patients against clinical and radiological criteria. Receiver operating characteristic (ROC) curve analysis was used to determine the accuracy of models.

Results The optimal cytoreductive surgery rate was 88.28% (n=128). 80.69% (n=117) had no visible disease. Both RS1 and RS2 models predicted surgical outcomes. RS1 AUC 0.862 (95% CI: 0.8189 to 0.9067, P<0.0001), RS2 AUC 0.869 (95% CI 0.8263 to 0.9126, P<0.0001).

Conclusion In our centre, Suidan et al's RS1 and RS2 models were able to predict cytoreductive outcomes. Predictive models may help determine patient suitability for cytoreductive surgery in AOC treatment.

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A RETROSPECTIVE STUDY OF OVARIAN CANCER AMONG ELDERLY – EVALUATION AND PROGNOSIS

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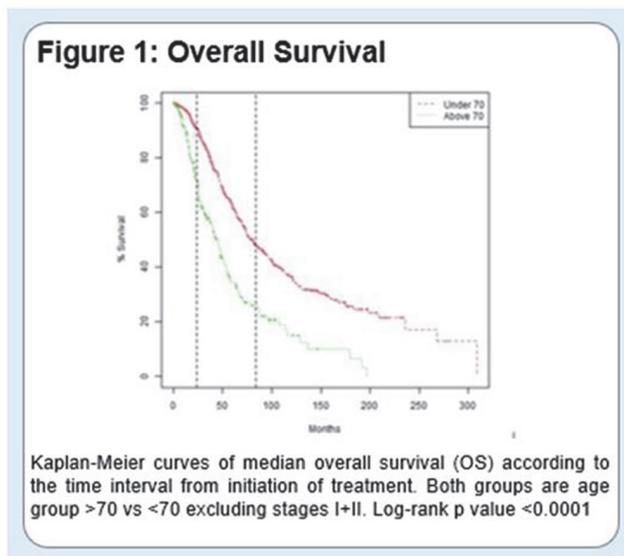
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Introduction/Background Half of epithelial ovarian cancer (EOC) are diagnosed above age 65. Women over 70 have higher morbidity and mortality. Our real-life retrospective study evaluates elderly with EOC.

Methodology Women above 70 were classified as 'elderly' (N=233) (71–93), and below 70 – 'control cohort' (N=755) (24–70). Treatment schedule used (6–8 cycles) were 3-weekly regimen (PC-3W) – carboplatin AUC-6 + Paclitaxel 175 mg/m² on day 1 of a 21-day cycle, and weekly regimen (PC-1W) – carboplatin AUC-2 + paclitaxel 80 mg/m² on days 1, 8, and 15 of a 28-day cycle

Results When comparing elderly to control median overall survival (mOS) was 41.26 (33.05–63.87) vs. 69.78 (50.07–75.01) months respectively (p<0.0001). No statistical differences were shown when comparing toxicities except for grade 2 anemia – 36.49% vs. 19.67% respectively (p<0.0001) and grade 2 alopecia – 44.81% vs. 60.52% respectively (p<0.0001). The use of PC-1W vs. PC-3W was 44.29% vs 47.14% in the elderly compared to 39.03% vs. 60.3% in the control (p<0.0001). Among the elderly mOS

was 57.17 vs. 30.00 months for PC-1W and PC-3W respectively ($p = 0.0075$). No differences in toxicity were shown, when comparing PC-1W to PC-3W in elderly except for grade 2 alopecia – 26.21% vs. 65.18% respectively ($p < 0.0001$), and grade 2 neuropathy – 20.19% vs. 36.61% respectively ($p = 0.0119$)



Abstract 2022-RA-209-ESGO Figure 1

Abstract 2022-RA-209-ESGO Tabel 1

Abbreviations OS = overall survival, PFS = Progression free survival

Table 1: Patient Survival Data

| Survival Data | Under 70 N = 714 | Above 70 N = 230 | P Value |
|---------------------------------------------|---------------------|---------------------|---------|
| Survival Data (Excluding Stage I+II) | | | |
| Median OS (months) | 80.07 | 45.14 | <0.0001 |
| Median PFS (months) | 19.02 | 12.45 | <0.0001 |
| OS after Recurrence | 32.43 | 15.61 | <0.0001 |

OS, PFS, OS after Recurrence in patients under vs above age 70 (excluding stages I+II)
Abbreviations OS = overall survival, PFS = Progression free survival

Conclusion mOS is reduced in elderly, though better than expected, furthermore toxicity is tolerable in elderly. PC-1W was both more abundant and had better mOS in the elderly population. Therefore PC-1W regimen may offer advantages for elderly in terms of tolerance while retaining efficacy.

2022-RA-211-ESGO

EXPRESSION OF THE ANTI-ANGIOGENIC VEGF-A SPLICE VARIANT, VEGF-A₁₆₅B, AS PREDICTIVE BIOMARKER FOR BEVACIZUMAB TREATMENT IN ADVANCED OVARIAN CANCER PATIENTS

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Introduction/Background The identification of a robust immunohistochemical marker to predict the response to bevacizumab in ovarian cancer is of high clinical interest. VEGF-A, the molecular target of bevacizumab, is expressed as multiple isoforms with pro- or anti-angiogenic properties, of which VEGF-A₁₆₅b is the most dominant anti-angiogenic isoform. The balance of VEGF-A isoforms is closely related to the angiogenic capacity of a tumor and may define its vulnerability to anti-angiogenic therapy. We investigated, whether expression of VEGF-A₁₆₅b is a predictive biomarker for bevacizumab treatment in advanced ovarian cancer.

Methodology Formalin-fixed paraffin-embedded (FFPE) tissues from 413 patients of the ICON7 multicenter phase III trial, treated with standard platinum-based chemotherapy with or without bevacizumab, were probed for VEGF-A₁₆₅b expression by immunohistochemistry.

Results In patients with low VEGF-A₁₆₅b expression, the addition of bevacizumab to standard platinum-based chemotherapy significantly improved progression-free (HR: 0.727, 95%CI=0.538 – 0.984; $p=0.039$) and overall survival (HR: 0.662, 95%CI=0.458 – 0.958; $p=0.029$). Multivariate analysis showed that the addition of bevacizumab in low VEGF-A₁₆₅b expressing patients conferred significant improvements in progression-free survival (HR: 0.610, 95%CI=0.446 – 0.834; $p=0.002$) and overall survival (HR: 0.527, 95%CI=0.359 – 0.775; $p=0.001$), independently from established risk factors.

Conclusion We demonstrate for the first time that immunohistochemical expression of the anti-angiogenic VEGF-A isoform, VEGF-A₁₆₅b, is an independent predictor for bevacizumab treatment in ovarian cancer patients. We envision that this marker could be implemented into routine diagnostics in ovarian cancer and may guide clinical decisions related to bevacizumab treatment.