advanced stage of the disease and are considered as unfavorable prognostic parameter.

Disclosures Loss of heterozygosity in the p53 and BRCA1 genes and amplification of c-Myc and c-erbB-2 oncogenes correlate with an advanced stage of the epithelial ovarian cancers and are considered as unfavorable prognostic parameter.

#844 EVALUATION OF THE PROGNOSTIC ROLE OF DSPG3 IN OVARIAN CANCER

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Introduction/Background Previously, we identified a multigene signature significantly related to differential survival of patients with high-grade serous ovarian cancer (OC).[1] One out of differentially expressed genes was DSPG3, coding for dermatan sulfate proteoglycan 3 (DSPG3, epifican). DSPG3 protein is mainly considered as related to the structure and function of cartilage. However, our preliminary results showed that DSPG3 is expressed in ovarian cancer and may have prognostic potential.

Methodology Kaplan-Meier Plotter and Microarray Gene Expression Database of OC Subtype (CSIOVDB; Cancer Science Institute of Singapore) online tools were used for survival analysis. Immunohistochemical (IHC) analysis was performed on 20 formalin-fixed paraffin-embedded OC samples and on tissue arrays (ovarian and fallopian tissues; US Biomax), using anti-DSPG3 antibody (NBP2–33445, Novus Biologicals); results were analyzed using Statistica-v.13.1 (StatSoft).

Results Kaplan-Meier Plotter and CSIOVDB analysis confirmed that DSPG3 mRNA level is significantly related to survival of OC patients. Additionally, multivariate analysis showed that higher expression of DSPG3 increased the risk of relapse. Next, we evaluated expression of DSPG3 protein by immunohistochemistry. However, there was no significant correlation of DSPG3 staining intensity with survival of OC patients. Nevertheless, the higher DSPG3 expression was more frequently observed in cancer cells in comparison to stroma (p= 0.001, 12,19 OR). Moreover higher level of this protein dominated in metastatic OC samples as compared to primary tumors (Fisher exact test, p = 0.017). Interestingly, we observed intense DSPG3 staining in tumor infiltrating lymphocytes. Higher DSPG3 expression was also more frequently observed in chronic inflammation of fallopian tube than in adenocarcinoma of the fallopian tube.

Conclusion DSPG3 mRNA level may have prognostic significance in ovarian cancer, however, DSPG3 protein level does not significantly correlate with patients' survival. In addition, our IHC results suggest a new role of DSPG3 in inflammation.

REFERENCE

1. K.M. Lisowska, *et al*. (2016) DOI: 10.1007/s00432-016-2147-y

Disclosures No COI

#845 CLINICOPATHOLOGIC AND SURGICAL ANALYSIS OF 1090 PATIENTS WITH BORDERLINE OVARIAN TUMORS: A TURKISH SOCIETY GYNECOLOGIC ONCOLOGY (TRSGO) MULTI-INSTITUTIONAL RETROSPECTIVE TRIAL

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Introduction/Background To investigate the clinicopathological and surgical charecteristics and to determine the factors affecting recurrence and survival rates in Turkish women with borderline ovarian tumors (BOTs).

Methodology We retrospectively investigated the data of 1090 patients with BOTs treated in 21 institutions for approximately the last 10 years. Some clinical, pathological and surgical data were evaluated. The clinicopathological, surgical data and recurrence and survival rates were evaluated using logistic regression analyses and Kaplan-Meier method.

Results The median age at diagnosis 42 years (range 13–94) and 65.1% of patients were premenopausal. Majority of cases were Stage I (77.5%) and unilateral (80.6%). The most common histologic types were serous and mucinous. Stromal microinvasion and micropapillary pattern were seen in 15,5% and 22.8%, respectively. 16.8% of patients operated via laparoscopy and 47.6% of cases were undergone conservative surgery (unilateral oopherectomy or cystectomy). Lymphadenectomy, omentectomy (or biopsy), appendectomy and peritoneal biopsies were done in 35.2%, 58.5%, 35.5% and 26.9% of cases, respectively. The median follow-up time was 66.5 months (range 6 – 238 months). Overall, 62 patients (6.1%) experienced recurrence and 14 (1.3%) died within the observation period. Five-year survival rate was 100% and median survival time was 234 months. Univariate analysis showed young age (<40 years), laparoscopic surgery and cystectomy were associated in disease free survival (DFS), lymphadenectomy, omentectomy, appendectomy, micropapillary patern and stromal microinvasion were not. None factors revealed no statistically significant association in DFS in multivariate analysis.

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Abstract #845 Table 1 Clinicopathological and surgical characteristics of patients with BPTs

Age (median, range in years)	42.0 (13-94 years)
<40 years	44%
>40 years	56%
Menopausal status	
Pre-menopause/Post menopause	65.1%/34.9%
Nulliparity	25.9%
Histology	
Serous	57.5%
Mucinous	28.8%
Histological features	
Micropapillary patern	22.8%
Stromal invasion	15.5
Implants (Non-invasive, invasive implants)	4%, 2.2%
FIGO Stage	
IA, IB, IC	59.4%, 7.8%, 10.7%
IIA, IIB, IIC, IIIA, IIIB, IIIC	1.2%, 1.1%, 0.5%, 1.3%, 0.5%, 2.7%
Tumor localisation	
Unilateral	80.6%
Bilateral	19.4%
Tumor size (median, range)	9.5 cm (2-40 cm)
Surgical approach	
Laparotomy	83.2%
Laparoscopy	16.8%
Surgery	
Conservative	47.6%
Radical	52.4%
Surgery	
BSO	47.1%
USO	33.5%
Cystectomy	18.3%
Omentectomy (and biopsy)	58.5%
Lymphadenectomy	35.2%
Appendectomy	35.5%
Peritoneal biopsies	26.6%
Surgical rupture	8.5%
First Surgeon	
Gynecolog	22.9%
Gyno-oncolog	76.3%
General surgeon	0.8%
Restaging case	4.7%
Type of recurrence	
Borderline	71.4%
Low grade	12.5%
High grade	14.3%
Site of recurrence	
Ovary	88.0%
Follow -up (median, range in months)	66.5 (6-238)
Last follow-up status (n, %)	
Recurrence	62 (6.1)
Death of disease	14 (1.3%)

Conclusion Although there is no standart a surgical approach in therapy of BOTs, prognosis is perfect. Lymphadenectomy, omentectomy and appendectomy do not contribute to reccurence and survival rates.

Disclosures I have no disclosure

#846 RELATIONSHIP OF 18F-FDG PET/CT BIOMARKERS AND CLINICAL, SURGICAL AND PATHOLOGICAL VARIABLES WITH THE RESPONSE TO NEOADJUVANT CHEMOTHERAPY IN STARTUP INOPERABLE HIGH-GRADE SEROUS OVARIAN CANCER PATIENTS

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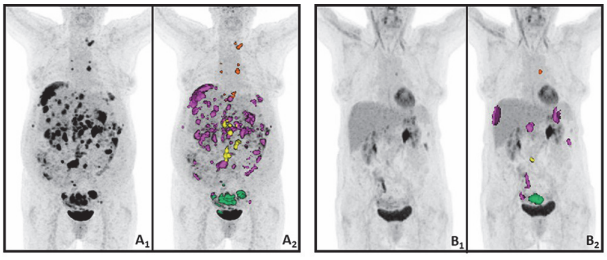
10.1136/ijgc-2023-ESGO.659

Introduction/Background To analyze the relationship of 18F-FDG-PET/CT biomarkers and clinical, surgical and pathological variables with the response to neoadjuvant chemotherapy (NACT) in startup inoperable patients (FIGO III/IV) high-grade serous ovarian cancer(HGSC).

Methodology Retrospective review of HGSC patients who underwent 18F-FDG-PET/CT before(PETpre) and after NACT (PETpost). NACT response was assessed by CA-125 levels, pathological chemotherapy response score(CRS 3-complete vs CRS1&2-partial and no response), and cytoreduction(R0-complete vs. R1-incomplete). 18F-FDG-PET/CT parameters were obtained by means of the segmentation of the supra and infradiaphragmatic disease using Syngo.via, with automatic thresholding at 30% of SUVmax. Metabolic parameters studied: metabolic active tumor volume(MTV) and total lesion glycolysis(TLG). The values for all these parameters at PETpre, as well as the presence of ascites with pathological 18F-FDG uptake(SUVmax ascites >SUVmean blood pool) and the modeled CA-125 elimination rate constant(KELIM, favourable if $\geq$ 1) were assessed in relation to NACT response. Variables were described by mean(SD) or median(IQR). Paired relationship among variables was assessed by McNemar and Wilcoxon test.

Results Seventeen patients were included, mean age of 63.6 years(range: 37–78); all patients displayed CA-125>35 and 76.5% showed pathological uptake in ascites in PETpre. After NACT(94.1% of patients received three cycles), values of CA-125<35 were observed in 35.3%, all patients normalized pathological uptake in ascites in PETpost and metabolic parameters studied decreased very significantly after NACT. Almost half patients(47.1%) presented complete CRS and 88.2% complete cytoreduction(R0); KELIM was favourable in 42.9%.

Despite these changes, only reduction of CA-125 was moderately correlated to reduction of some metabolic parameters: total TLG(rho:0.535; p=0,027), total infradiaphragmatic disease MTV(rho:0.577; p=0,015) and TLG(rho:0.597; p=0,011), and total peritoneal disease MTV(rho:0.609; p=0,012) and TLG(rho:0.609; p=0,014). Studied variables did not relate to cytoreduction and CRS.



Abstract #846 Figure 1 18F-FDG-PET/CT maximum intensity projections (MIP) for staging (A1 and A2) and for response assessment after NACT (B1 and B2). A1) The MIP image shows a bilateral high-grade serous ovarian cancer process with lymph node involvement (supra and infradiaphragmatic) and peritoneal carcinomatosis. A2) Segmentation of the supradiaphragmatic (segmented lymph nodes in orange) and infradiaphragmatic disease (segmented primary tumor in green, segmented peritoneal carcinomatosis in pink, and segmented infradiaphragmatic lymph nodes in yellow). B1) The MIP image shows a good partial morphometabolic response after NACT of the entire disease, both supra and infradiaphragmatic. B2) Segmentation of residual supra and infradiaphragmatic disease after NACT.

Conclusion NACT in HGSC patients with FIGO III-IV is related to big changes in most variables studied. Nevertheless, relationships to CRS and cytoreduction were impaired by the small sample size.

Disclosures Nothing to disclose.

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