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.