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Abstracts

ovarian tissues. Expression of TMED9 was respectively evaluated by Immunohistochemistry staining of EOC, borderline, benign, and normal epithelial tissues, qPCR, western blotting, and public data sets. Associations of clinicopathological features and prognosis with TMED9 in EOC patients were analyzed in our recruited cohort and GEO datasets. Also, the functional roles of TMED9 were evaluated by MTS, colony formation, and transwell migration/invasion assays in EOC cell lines.

Results TMED protein was elevated in EOCs according to a GEO and TCGA datasets. High mRNA and protein levels of TMED9 were observed in EOCs compared to borderline, benign, and normal nonadjacent ovarian epithelial tissues (p < 0.001). Importantly, high expression of TMED9 was associated with poor overall survival and disease-free survival compared with low expression of TMED0 in EOCs (p = 0.006, p < 0.001). In vitro results also demonstrated the knockdown of TMED9 was associated with decreased cell invasion (p < 0.001), migration (p < 0.001), proliferation (p < 0.001), and colony-forming abilities (p < 0.001) supporting the oncogenic role in EOC.

Conclusion Our study is the first work to identify an oncogenic role of TMED9 in EOC tissues and cell lines which may provide insights into the application of TMED9 as a novel predictor of clinical outcome and a potential therapeutic target in EOC patients.

2022-RA-901-ESGO OPEN ABDOMINAL VACUUM PACK TECHNIQUE FOR THE MANAGEMENT OF SEVERE ABDOMINAL COMPLICATIONS AFTER CYTOREDUCTIVE SURGERY IN OVARIAN CANCER

Introduction/Background Despite recent progress in the treatment of epithelial ovarian cancer the cure of this disease remains a challenge. Therefore new treatment options along with new prognostic and predictive markers are urgently needed. The enzyme acid ceramidase (AC) plays a central role in the sphingolipid network which is involved in tumorigenesis and progression. Furthermore AC directed therapies are currently under development. We investigated the expression of AC and its prognostic impact on ovarian cancers.

Methodology Patients of the AGO-cohort of the ICON-7 trial were analysed. In this randomized trial patients with advanced EOC received carboplatin + paclitaxel vs. carboplatin + paclitaxel + bevacizumab. Tissue micro arrays (TMAs) were constructed for performing immunohistochemical analysis of AC. The results were correlated with clinico-pathological characteristics and survival data.

Results Kaplan-Meier analysis (n=351) revealed that high levels of AC were associated with improved progression-free survival (PFS; 24.12 months [95% confidence interval (CI): 19.36 – 28.86] vs. 16.69 months [95% CI: 14.91 – 18.71], p < 0.0001) and overall-survival (OS; 66.83 months [95%CI: -] vs. 44.12 months [95%CI: 37.37 – 50.87], p < 0.0001). Subsequently, the prognostic value of AC expression together with clinical factors (i.e. FIGO stage, grading, histological subtype, bevacizumab medication and residual tumour burden after surgery) was further confirmed in multivariate Cox regression analysis in n = 426 patients (PFS: hazard ratio (HR) = 0.69 [95% CI: 0.530 – 0.877], p = 0.002; OS: HR = 0.67 [95% CI: 0.504 – 0.881], p = 0.004).

Conclusion Our data identify high levels of AC expression as a strong favorable prognostic marker in ovarian cancer patients.