

Methods Mononuclear cells (PBMCs) obtained from the peripheral blood and the ovarian tissue of patients suffering from ovarian pathology were isolated by density gradient centrifugation. The control group consisted of patients who had undergone surgery for unexplained infertility. The percentage of Treg and Th17 producing IL-21+ or IL-22+ lymphocytes in peripheral blood and tissue was assessed using the flow cytometry method according to the manufacturer's instructions. The ROMA index was calculated by way of levels of HE4 and CA125 in serum.

Results A negative correlation was also found in the percentage of CD4+/IL-21+ in the peripheral blood and the amount of Treg infiltrating normal ovarian tissue. Moreover, we observed a relationship between the ROMA percentage in the serum and Treg in the peripheral blood of women suffering from benign ovarian tumors.

Conclusions In patients with benign tumors, we found for the first time, significant negative correlation between percentages of circulating Treg cells in the peripheral blood and with ROMA assessment in the serum. This result could be explained by the negative influence of Treg on inflammation and secondary on malignancy induced by chronic inflammation. Furthermore, the imbalance in Treg percentage in normal ovarian tissue of patients suffering from unexplained infertility, could induced immunotolerance, and hence, infertility

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307 ANALYSIS OF TH17 CELLS IN OVARIAN CANCER IN TERMS OF THEIR CLINICAL SIGNIFICANCE

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Objectives The aim of the study was evaluation of Th17 cells in patients with different clinical manifestation of ovarian cancer (OC) in three environment: peripheral blood (PB), peritoneal fluid (PF) and tissue (TT), and establish their role in OC pathogenesis.

Methods The study included 59 patients with OC, 35 women with benign ovarian tumors and 10 healthy donors. The percentage of Th17 cells was analyzed by flow cytometry. Th17 cells were analyzed as percentage of CD4 + with intracellular expression of IL-17A.

Results The highest percentage of Th17 cells was detected among tumor infiltrating CD4 + lymphocytes and it was significantly higher ($p=0.001$) than in PB. The percentage of Th17 cells in both, PB and PF of patients with OC was lower ($p<0.0001$) than in benign tumors group. There was no significant differences in the percentage of Th17 cells in PB, PF and TT in relation to FIGO stages, histopathological grading, Kurman and Shih's type. There was no relationship between the percentage of Th17 cells in PB, PF, TT and patients survival.

Conclusions 1. There are differences in the percentage and distribution of Th17 cells in the PB, PF and tumor tissue of OC patients. 2. Lower percentage of Th17 cells in the PB and PF of OC patients in comparison to benign tumors may promote evade host immune response by cancer cells. 3. There were no significant differences in the percentage of Th17 cells

in OC patients depending on FIGO stage, histological grade, Kurman and Shih's type and five-years survival rate of patients.

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308 DO OVARIAN CANCER PATIENTS WITH PRIMARY OR SECONDARY PLATINUM RESISTANCE HAVE SIMILAR RESPONSE TO SUBSEQUENT CHEMOTHERAPY – RETROSPECTIVE COHORT STUDY

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Objectives Response to platinum-based chemotherapy is considered to be one of the most important prognostic factors in recurrent ovarian cancer. Women with primary platinum resistance (PPR) have poor prognosis. Less is known regarding outcome in patients with secondary, acquired platinum resistance (SPR).

We evaluated response to treatment and survival in patients with PPR compared to patients with SPR.

Methods This retrospective cohort study included patients treated for ovarian, tubal and primary peritoneal cancer in Wolfson Medical Center during the years 2000–2015. The patients were categorized as PPR (disease recurrence less than 6 months after completing first line platinum based chemotherapy) and SPR (previously platinum sensitive disease that developed platinum resistance on subsequent treatments).

Results 118 patients were included in this study, 60 had PPR and 58 developed SPR. The SPR women had significantly higher rate of optimal debulking during their upfront and interval operations, significantly lower CA-125 levels during their primary treatment and significantly higher complete and partial response rate to primary chemotherapy. Nevertheless, once platinum resistance appeared, no significant difference in survival was observed between the two groups. The median PFS was 2 month in the PPR group and 0.83 month in the SPR group. Also, no significant difference was found in OS, median of 17.63 month in the PPR and 20.26 month in the SPR group.

Conclusions Platinum resistance is an important prognostic factor in women with ovarian cancer. Even with good response to primary surgery and chemotherapy, once platinum resistance appears the disease course is similar to patients with primary resistance.

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309 RETROPERITONEAL LYMPH NODE RECURRENCE OF EPITHELIAL OVARIAN CANCER: PROGNOSTIC FACTORS AND TREATMENT OUTCOME

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Objectives To compare the treatment outcome and survival of patients with recurrence in retroperitoneal lymph nodes versus women with intraperitoneal recurrence.