The aim of this study was to estimate antigen presenting cells (APC): dendritic cells (DCs) and macrophages in the peritoneal fluid (PF) of women with FIGO stages II (n=18) and III (n=28) of ovarian carcinoma and benign ovarian tumors (n=37). APC were isolated from PF, stained with monoclonal antibodies and estimated using flow cytometry. The percentage of PF myeloid DCs in patients with stage II of FIGO was 1.23% (range 0.06-5.01%) and stage III of FIGO 0.56% (0.08-3.28%) and was significantly lower than in the reference group 6.95% (range 0.2-24.48%). The percentage of PF lymphoid DCs was higher in patients with ovarian cancer (FIGO stages II and III) than in the reference group. In women with stage III of ovarian cancer PF myeloid/lymphoid DCs ratio was lower in comparison to patients with stage II of FIGO. In women with ovarian cancer (FIGO stages II and III ) the percentage of macrophages was lower than in the reference group (10.98% and 3.01% vs 27.78%). In PF of patients with more serious stage of malignant disease we found lower percentage of macrophages. We concluded that population of myeloid DCs and macrophages may be affected by the presence of malignant disease. Lymphoid DCs subsets may have influence on the local immune response in PF of women with more serious stage of malignant disease.