

divided into 4 categories following TNM-FIGO classification of 2013 (pelvic, peritoneum, retroperitoneal lymph-nodes, distant metastasis). The final diagnosis was based on histopathology results or follow-up data (image and/or clinical data). **Results:** 66 ¹⁸F-DG PET-CT and CE-CT studies were performed in 48 patients, mean age of 58 years old with ovarian cancer disease. At the diagnosis the most frequent histological subtype was serous carcinoma (80.3%), stage IIIc (69.2%), high grade (83.3%). 71.2% of patients were referred for suspicion of recurrent disease by clinical data (2.1%), by image (40.4%), tumor marker (27.7%) or a mixture of them (29.8%). 28.8% of patients were referred for monitoring the response to treatment. ¹⁸F-DG PET-CT and CE-CT had coincident findings in 42.4% (29.6% in pelvis and peritoneum respectively, 22.2% in distant metastasis and 18.5% in retroperitoneal lymph-nodes). ¹⁸F-DG PET-CT detected more findings in 43.9% studies (31.9% in retroperitoneal lymph-nodes, 27.8% in peritoneum, 26.4% in distant metastasis, 13.9% in pelvis), which were all true positive findings. CE-CT detected more findings in 13.6%, most of them were distant metastasis, of which only one third were true positive. ¹⁸F-DG PET-CT had a sensitivity of 94.6%, specificity of 70.0%, PPV of 94.6% and a NPV of 70.0%. CE-CT had a sensitivity of 85.7%, specificity of 10.0%, PPV of 84.2% and a NPV of 11.1%. **Conclusions:** ¹⁸F-DG PET with low-dose CT has a higher sensitivity and PPV compared to CE-CT. The increased sensitivity of ¹⁸F-DG PET-CT is overall due to detection of disease in retroperitoneal lymph-nodes. The values of specificity and NPV may be not reliable due to the sample number.

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The role of PET/CT in the detection of residual/recurrent tumor in patients with ovarian cancer whose Ca-125 value is within normal limits

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Purpose: The purpose of our retrospective study was to investigate the efficacy of 18F-FDG PET/CT in the detection of residual/recurrent tissue in the follow-up of patients with ovarian cancer whose serum Ca-125 level is within normal limits. **Materials and Methods:** 18 patients with histologically proven ovarian cancer were included in the study. All patients completed their treatment which included surgery and/or adjuvant chemotherapy. The study group consisted of follow-up patients who underwent PET/CT imaging either after clinical suspicion or abnormal radiological imaging findings. Total 22 18F-FDG PET/CT imaging were performed in 18 patients. The mean age of the patients was 57.7 ± 9.4. The tumor histopathology was derived from epithelial origin in 15 (83.3%) and non-epithelial origin in 3 (16.7%) patients. Increased 18F-FDG uptake according to physiological involvement was assessed as positive for tumor tissue after being correlated with abnormal finding in CT. 18F-FDG PET/CT imaging results were compared with histopathological diagnosis

after biopsy or surgical procedures following imaging. **Results:** Residual/recurrent disease was diagnosed histopathologically in 17 of 22 PET/CT scans. PET/CT showed positive finding in all residual/recurrence disease except one. The most common metastasis places in PET/CT imaging were the lymph nodes. The involvement areas were abdominal-pelvic lymph nodes in 12 (54.5%), thoracic lymph nodes in 2 (9%), cervical lymph node in 2 (9%), peritoneal involvement in 7 (31.8%), liver in 3 (13.6%) and primary tumor areas in 4 (18.1%) PET/CT imaging. The values of mean SUV max ± standard deviation were calculated 9.2 ± 4.8 in abdominal-pelvic lymph nodes, 5.8 ± 4.1 in thoracic lymph nodes, 4.9 ± 2.9 in cervical lymph nodes, 12.7 ± 5.9 in peritoneal involvement areas and 6.0 ± 1.7 in primary tumor areas. When evaluated according to histopathological diagnosis, 16 true positive, 2 true negative, 1 false negative and 3 false positive results were obtained in PET/CT. Sensitivity, specificity, positive predictive value, negative predictive value and accuracy rate for PET/CT were 96.3%, 40%, 84.2%, 66.6%, and 81.8% respectively for the detection of residual/recurrent tissue in the patients with ovarian cancer. **Conclusion:** FDG-PET/CT imaging, which demonstrates the patient's tumor burden and anatomical/metabolic characteristics of the lesions with high accuracy and sensitivity, which helps the clinicians in diagnosis and treatment planning is a valuable tool in detection of residual/recurrent disease in follow-up ovarian cancer patients with normal Ca-125 level. **Key words:** Ovarian cancer; residual/recurrent tumor; PET/CT; normal tumor markers.

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Prognostic value of metabolic criteria with 18F-FDG PET / CT in patients with follicular lymphoma

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Aim: To evaluate the prognostic value of the different metabolic criteria in the ¹⁸F-FDG PET/CT baseline and interim study in patients with follicular lymphoma **Material and Methods:** 36 patients (20 women / 16 men, age 59.97 ± 13.3) who underwent three ¹⁸F-FDG PET/CT studies: at baseline, after 2-4 cycles of chemotherapy (interim) and at the end of treatment. The variables Total Glycolysis Tumor (TGT) and Tumor Metabolic Volume (TMV) of the lesion with higher uptake in the baseline ¹⁸F-FDG PET/CT (TGT1, TMV1), in the interim study (TGT2, TMV2) and the reduction between both (%ΔTGT and %ΔTMV) using the MIMvista® software (PET-edge tool). The ROC curves are obtained to determine the optimal cut-off of parameters to predict response. A 40-month follow-up is performed with ¹⁸F-FDG PET/CT at the end of treatment, clinical follow-up, analytical and by