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Орална презентација / Oral Presentation

F-18 FDG-PET/CT imaging in recurrent and metastatic colorectal carcinoma: metabolic characteristics

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Objectives:

The purpose of this study was to evaluate the metabolic characteristics of recurrent colorectal carcinoma at the surgery site and distant metastases after treatment.

Material and Methods:

Records of 78 patients with colorectal carcinoma 50 men, 28 women, mean age: 60 years, (range: 28-82 years) who were treated and underwent FDG PET/CT scanning for restaging of colorectal carcinoma. Increased FDG uptake in the postsurgical area, liver parenchyma and lung nodules >9mm were retrospectively analysed and SUVmax as well tumor to liver ratio (TLR) were calculated.

Results:

In 20 patients (25%) there was increased FDG uptake in the liver parenchyma with SUVmax=8.07 (range: 4.1-17) and TLR=3.0 (range: 1.7-6.5). Increased FDG uptake in the postsurgical area suspicious for local recurrence was detected in 14 patients (18%) with SUVmax=9.85 (range: 3,6- 24.7) and TLR=3.9 (range: 1.1-9.5). Lung nodules with average diameter of 15.4mm (range: 10- 27mm) were detected in 18 patients (23%) with SUVmax=5.0 (range:1.5-10) and mean TLR=1.8 (range: 0.5-3.4)

Conclusion:

The widely used semiquantitative measurements SUVmax and TLR significantly vary in local recurrence and distant metastasis in colorectal cancer. FDG uptake was highest in local recurrence, and lower in distant metastases. The lung metastases showed lower metabolic activity compared to liver metastases. These features should be taken into account during the interpretation of the scans in these patients.