구연발표 II-2

Role of Whole-Body Positron Emission Tomography With 18-FDG in Recurrent Gastric Cancer

연세대학교 의과대학 외과학교실

정재호, 첸지안, 김준억, 형우진, 최승호, 노성훈

Objective: To assess the additional value of the whole-body 18-fluorodeoxyglucose positron emission tomography (FDG-PET) scan as a staging modality complementing computer tomography (CT) in patients with known or suspected recurrent gastric adenocarcinoma.

Method: Eighty-seven patients (61 M/26 F) who underwent curative resection for gastric adenocarcinoma referred for postoperative FDG-PET imaging were included in study. All the patients underwent spiral CT within one month. A final diagnosis was reached by clinical examination, histology or follow up (> 6 months).

Results: In a patients-based analysis, FDG-PET correctly identified 46 of 54 patients with recurrence and 31 of 33 without recurrence, resulting in a sensitivity, specificity, and accuracy of 85%, 94%, and 89% respectively. Discordances between FDG-PET and CT findings were found in 27 of 87 patients (31%). In these, FDG-PET result were correct in 18 (67%) patients, it was higher than that of CT scan (16/27, 59%). In a regions-based analysis, 43 regions were discordant between PET and CT, PET detected recurrent lesions in 6 locoregional lesions, 6 hematogenous lesions, 2 peritoneal dissemination, and 6 extra-abdominal lymph node metastases, which were false-negative findings by CT scan. One false-positive finding of peritoneal recurrence in CT scan was corrected by FDG-PET. Overall FDG-PET had additional diagnostic value in 10 (11%) of 87 patients by upstaging 9 (10%) and downstaging 1 (1%) patients. FDG-PET combine with CT had a higher accuracy for detecting recurrent lesions compared to CT and PET (98% Vs 87%, 98% Vs 89%, respectively).

Conclusions: Whole-body FDG-PET is a useful diagnostic modality for detecting recurrent gastric adenocarcinoma, and can localize the disease when CT is non-diagnostic. Evaluation with FDG-PET can clear impact on the clinical management in the follow-up of patients with gastric cancer.