

POSTER PRESENTATION

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Value of FDG PET/CT in the assessment of patients with colon cancer comparing to stand-alone CT

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Purpose

To evaluate the potential of FDG PET/CT vs. stand-alone CT in the assessment of histopathologically verified colon cancer in primary staging, re-staging and follow up.

Material and methods

70 patients (39 men, 31 women, mean age 70.7 ± 10.7 years) were included in this retrospective study: 28 (40%) primary staging, 28 (40%) re-staging and 14 (20%) follow-up patients.

Fifty-eight (58/70) patients (83%) had a primary tumour stage of $\geq T3$. Patients with a known secondary carcinoma were excluded. Diagnostic contrast-enhanced CT was available in all patients (together with PET or in a separate setting with the same acquisition parameters).

The CT and FDG PET reports were examined for all patients. In discordant cases, images of both modalities were re-evaluated by a radiologist and a specialist in nuclear medicine separately.

All results were verified with histological findings or imaging and/or clinical follow-up studies for at least six months.

Results

In the preoperative setting, additional FDG PET had an influence on the staging in 11 (11/28) patients (39%) comparing to CT alone:

Nine (9/28) patients (32%) were downstaged, 6 of them with suspicious organ metastases, 3 patients with suspicious lymph node metastases and 1 patient with both suspicious organ metastases and lymph nodes metastases on CT.

Two (2/28) patients (7%) were upstaged by FDG PET/CT, one of them with an unclear lung lesion on CT and a malignant hilar lymph node. The second patient showed peritoneal carcinosis on FDG PET.

Comparing with stand-alone CT, only 3 (3/42) patients (7%) from the restaging and follow-up group were downstaged by additional FDG PET, while concordant findings were seen on both imaging modalities for the rest of the patients.

Conclusion

This study clearly showed that for primary staging of distant metastases in colon cancer patients FDG PET/CT is more advantageous and overcomes the lower specificity of CT alone.

Comparing both modalities in postoperative cases, FDG PET provides additional findings only in few cases.

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