

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  $70.7 \pm 10.7$  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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