



The PET Experts

FDG-PET-CT is effective in selecting patients with poor long term survivals for colorectal liver metastases

V.S. Yip, et al, *European Journal of Surgical Oncology*, 15 November 2013.

Abstract

Purpose

Having incorporated PET-CT as part of the staging process for colorectal liver metastases (CRLM) in our unit since 2008, this study aims to evaluate the survival outcomes of all patients managed by our specialist multi-disciplinary team (MDT).

Methods

All patients with colorectal liver metastases referred to a single liver MDT between 2008 and 2011 were examined. Overall survival (OS) for palliative groups due to occult extrahepatic disease detected by PET-CT (A) and those upfront palliative patients with extensive multi-site disease as identified on baseline CT or disease progression during chemotherapy (B), and resected (C) groups were evaluated and compared. Different extents of occult extrahepatic disease as characterized by PET-CT were also compared.

Results

532 patients were included in the study. Median OS for group A (n = 80), B (n = 161) and C (n = 291) were 10.9, 12.0 and 46.7 months, with a 5-year OS approaching 6.5%, 6.1% and 43.0% respectively. There were significant differences in OS of C vs. A & B ($p < 0.001$). Single compartment metastases had a significant better survival outcomes than non-torso metastases ($p = 0.04$).

Conclusion

This is the first report of OS of patients with CRLM excluded from surgery on the basis of PET-CT. **We have confirmed that PET-CT is effective in selecting patients with occult extrahepatic disease, which has poor survival outcomes.** However, a subgroup with single compartment extrahepatic disease has a better than expected outcome.

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Reuters Health Information

PET-CT Accurately Identifies Colorectal Metastases With Poor Prognosis

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NEW YORK (Reuters Health) Dec 13 - In patients with potentially resectable colorectal liver metastases, the use of combined PET and CT imaging (PET-CT) identifies those with occult extrahepatic disease and who are therefore deemed incurable, according to a UK team

However, within this group, a subset demonstrates a better-than-expected outcome "and as such, might benefit from a more aggressive surgical approach, but with palliative intent?" the researchers suggest.

Dr. Hassan Z. Malik and colleagues at University Hospital Aintree, in Liverpool, evaluated outcomes in 532 patients with colorectal liver metastases seen at their tertiary hepatobiliary unit since the introduction of PET-CT for staging in 2008.

The patients fell into three categories: 80 patients were found to have occult extrahepatic disease detected by PET-CT, which rendered them unresectable, and were therefore offered palliative care; 161 patients were offered palliative care upfront because of extensive multi-site disease seen on initial CT or because of progression during chemotherapy; and 291 underwent surgery with curative intent.

Median overall survival was 10.9 months in the group with extrahepatic disease, 12.0 months among those with multi-site or progressive disease, and 46.7 months for those who underwent surgery. Corresponding rates of five-year overall survival in the three groups were 6.5%, 6.1% and 43.0%, the authors report in the *European Journal of Surgical Oncology* online November 15.

"We have confirmed that PET-CT is effective in selecting patients with occult extrahepatic disease, who have a poor survival outcome as those patients with disease progressions during chemotherapy," Dr. Malik and colleagues conclude.

When they further analyzed outcomes in the group with extrahepatic metastases, they found that survival varied with the extent of disease. Median overall survival was 15.0 months for those with metastases in only the abdomen or pelvis; 11.0 months among patients with both thoracic and abdominal/pelvic involvement; and 8.1 months for those with non-torso metastases.

The trend toward better survival in the single-compartment versus dual-compartment metastatic groups was not statistically significant, the investigators note. "Nevertheless," they conclude, "it does raise a controversial question as to whether there is a role in offering more aggressive surgical intervention to patients in this highly selective single compartment metastatic group."