

AJR: PET/CT could be rolled into preop workup for metastatic melanoma

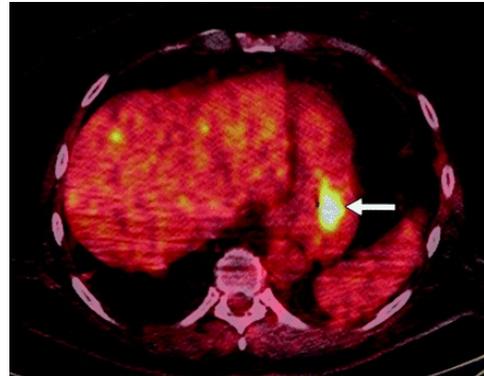
In patients with surgically treatable metastatic melanoma, FDG PET/CT can detect unexpected metastases that are missed or not imaged with conventional imaging, and can be considered as part of preoperative workup, according to a study in the April issue of the *American Journal of Roentgenology*.

“Despite the reported accuracy of FDG PET/CT, this modality has not become a part of conventional imaging for melanoma staging,” the study authors wrote. “FDG PET/CT is not routinely used for the pre-surgical evaluation of patients with advanced melanoma at our institution.”

In this study, Yulia Bronstein, MD, and colleagues at MD Anderson Cancer Center University of Houston, sought to determine how often unexpected 18F-FDG PET/CT findings result in a change in management for patients with stage IV and clinically evident stage III melanoma with resectable disease according to conventional imaging.

The researchers identified 32 patients with oligometastatic stage IV and clinically evident stage III melanoma by surgical oncologists according to the results of conventional imaging, which included contrast-enhanced CT of the chest, abdomen, and pelvis and MRI of the brain. The surgical plan included resection of known metastases or isolated limb perfusion with chemotherapy. There were 33 FDG PET/CT scans performed within 36 days of contrast-enhanced CT.

The researchers defined the impact of PET/CT “as the percentage of cases in which a change in the surgical plan resulted from the unanticipated PET/CT findings.”



63-year-old man with melanoma metastasis to right adrenal gland who was candidate for right adrenalectomy. Axial fused PET/CT image shows abnormal focal FDG uptake (arrow) in stomach.
Source: *Am J Roentgenol* 2012;198(4):902-908



Molecular Imaging

PET/CT revealed unexpected melanoma metastases in 12 percent of scans, the study authors reported, who wrote that “the finding is in concordance with previously published studies.” After PET/CT, surgery was canceled for two patients, and the planned approach was altered for another two patients to address the unexpected sites.

In 6 percent of the scans, the unexpected metastases were detected in the extremities, which were not included in conventional imaging. “[G]iven the highly selective nature of our patient population, these data can be of value to surgical oncologists in their clinical practice, although the small study group limits our ability to define factors associated with unexpected PET/CT findings,” Bronstein et al concluded.

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