

## **PET and PET•CT in Colorectal Cancer**

**1. Are PET and/or PET•CT useful in the evaluation of patients with colorectal carcinoma?**

Yes. FDG PET and PET•CT are useful for the initial evaluation, staging and re-staging of colorectal cancer.

**2. Is FDG PET and/or PET•CT recommended for screening?**

No, although incidental colorectal lesions are sometimes identified on PET and PET•CT, the current costs of performing the exams outweigh the potential screening benefits.

**3. Is PET or PET•CT good for evaluating regional lymph node metastases?**

A few studies have suggested that PET alone may not be that sensitive for detecting locoregional lymph node involvement. This was thought to be due to the inability to differentiate the primary tumor from immediately adjacent lymph nodes. However, the specificity and positive predictive value are generally higher, so that if abnormal lymph nodes are visualized, they are generally involved with tumor.

**4. Is FDG PET or PET•CT helpful for staging patients?**

Yes, although it is not highly sensitive for locoregional lymph node involvement, FDG PET and PET•CT have been shown to be very helpful in evaluating the liver and other distant areas of potential metastatic disease and often alters the surgical approach/management of patients by showing unsuspected metastatic disease.

**5. Are there any colorectal malignancies with little or no FDG uptake?**

Yes, there are a few relatively or absolutely non-FDG avid colorectal malignancies, including well-differentiated mucinous adenocarcinomas.

**6. Are PET and PET•CT helpful in restaging patients with colorectal cancer?**

Yes, the modalities are very sensitive and specific for evaluating the colonic anastomosis, for differentiating post-surgical presacral soft tissue from tumor and for detecting occult disease in patients with a rising CEA level.

**7. Are PET and/or PET•CT helpful for evaluating patients who have undergone radiofrequency ablation (RFA) of liver metastases?**

Yes, both are very helpful for detecting residual/recurrent tumor after RFA. Patients should not be referred within 4 weeks of receiving RFA to avoid inflammatory FDG uptake at the site. PET•CT offers the added advantage of being able to localize precisely small areas of residual or recurrent disease.

Source: Data courtesy of Dr. Todd Blodgett, University of Pittsburgh Medical Center