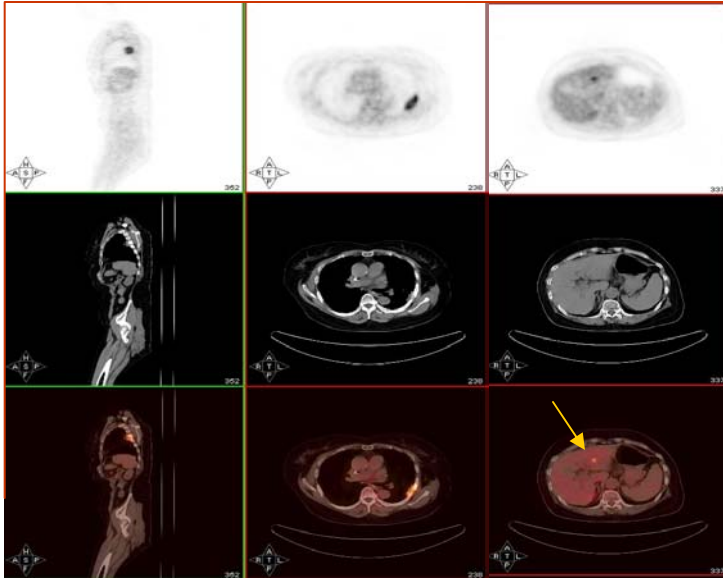


Case of the Month Colorectal Cancer



PATIENT HISTORY

➤ 68 Y/O female with history of colon cancer with rising CEA. The patient presented with increasing rib and back pain. PET/CT for restaging.

PET/CT FINDINGS

➤ PET/CT demonstrates a focal area of increased tracer concentration in the left lateral sixth rib. When compared to the prior scan, the intensity has increased and there is evidence soft tissue FDG uptake. A focal area of uptake is noted in the LL of the liver. The CT shows no abnormality corresponding to this area.

IMPRESSION

➤ Findings consistent with recurrent Colorectal Cancer with likely hepatic metastasis.

DISCUSSION

➤ This case illustrates the incremental value of PET/CT. The CT performed alone would have missed the liver metastasis. PET/CT has a further advantage in that only a single study is necessary to make clinical management decisions.

Featured Indication:

Colorectal Cancer

PET/CT has been shown to be of indispensable value in the staging and management of patients with colorectal cancers. While CT alone provides high-resolution morphologic information, diagnoses are based on lesion size. Studies have shown that up to 21% of lymph nodes smaller than 1 cm to be malignant, whereas 40% of those larger than 1 cm were demonstrated to be benign.¹

Fernandez, et al, demonstrated a dramatic effect on 5-year survival rates for colorectal cancer patients, increasing to 58% from 30% for patients not worked up with PET.²

PET/CT has been shown to be particularly useful in assessing possible colorectal cancer recurrence. With rising CEA PET/CT can localize and stage cancer with very high sensitivity and specificity – 100% / 88%.³

It is therefore recommended that PET/CT be utilized in patients for, (1) initial staging for assessment of loco/regional nodes, (2) with rising CEA without a known source, (3) following equivocal or negative conventional imaging with suspected recurrence, and (4) pre-operative staging before curative resection.⁴

1. Antoch et al, *Journal of Clinical Oncology*, Vol. 22, No. 21, November 1 2004
2. Fernandez, et al, *Annals of Surgery*, Vol.240, No. 3, Sept 2004.
3. Selzner, et al, *Annals of Surgery*, Vol.240, number 6, 2004.
4. Delbeke, *Journal of Nuclear Medicine*, Vol. 40, 591-603,1999



The Stage

May 2005

Featured Guest Contributor:

Medical Imaging

by

Colton Manning, Age 10



Medical Imaging is when you create a picture made by a machine to find a type of tumor, cancer, or a deadly virus or disease. The best company that takes these pictures is Trident. They have many types. All of the types are very different, and they are very strange in how they look.

First of all, Trident takes many different types of pictures from these machines. The most commonly used scanner by Trident is the PET scanner. PET stands for positron emission tomography, which means it's a diagnostic imaging technique used to image the body's chemistry. Three other types are the CT scanner, the MRI scanner, and the Ultrasound. The most highly advanced scanner is the PET/CT, which is a combination of the PET and the CT scanners. I think I'd want the PET/CT to take pictures of me, if none other!

To continue, there are many differences in the machines. All of the machines except for the PET scanner photograph the body's structure, or anatomy. The PET scanner has its special ways. Before the patients get the scan, they get a shot. In that shot is a radioactive chemical, which goes straight to the disease. Then, when you get the PET scan, the PET scanner sees the chemicals on the disease and takes a picture of it. Pretty cool, huh?

Finally, these machines have a very strange look. All but the ultrasound have a big circle with a tube in the middle. In the middle of the tube is a long bed. To me, it looks like a doughnut with a finger through the center! Anyway, the bed moves like a treadmill, so the patient moves through the machine while the machine takes the picture. Some of the pictures are black and white, like in the CT scanner. Some are in color, like the PET scan, and some are just dots. A radiologist doctor looks at the pictures to tell if a patient has a disease.

To conclude, Medical Imaging can save people's lives because of Trident's types of scanners. And, who could forget about how strange the scanners look? It's a good thing that we have these over-a-million dollar machines because if we didn't, doctors wouldn't be able to find out what was wrong with the patient. And, if you are interested in getting one of these scans, you will have to travel all the way to Atlanta or Savannah, Georgia.

To Order a PET/CT Scan:

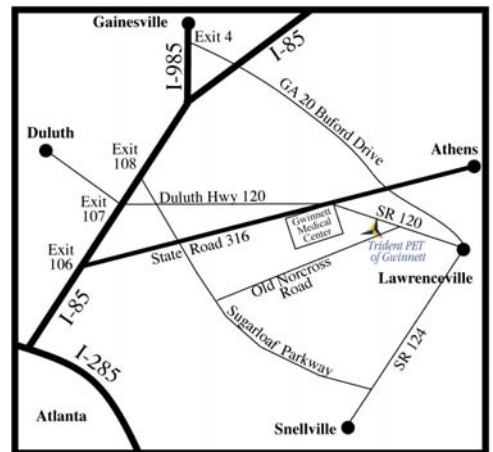
Call: 770-513-2499

Fax: 770-513-2715

Email:

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