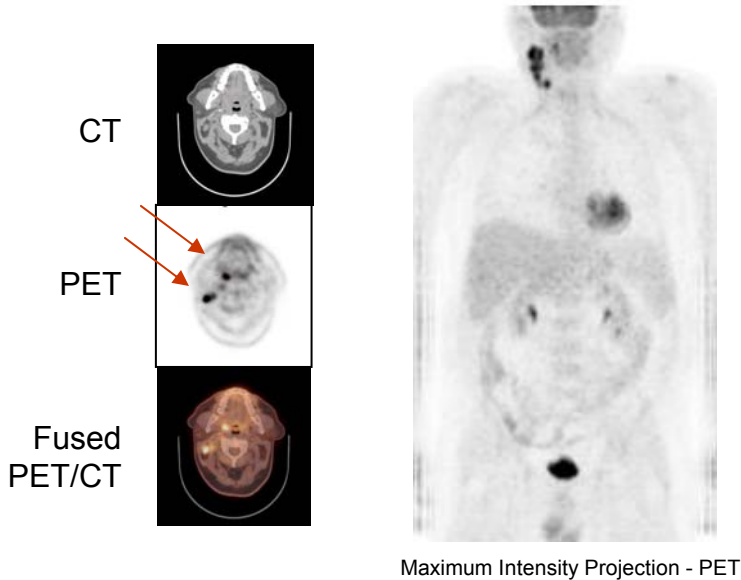


## Case of the Month Squamous Cell Tonsillar Cancer



Maximum Intensity Projection - PET

### PATIENT HISTORY

➤ 52 Y/O male with history of metastatic squamous cell carcinoma in right sided cervical lymph nodes. Unknown primary tumor. CT scan prior to pathology suggestive of lymphoma, with evidence of significant bilateral sinusitis and slight asymmetrical tonsil size.

### PET/CT FINDINGS

- Abnormal FDG uptake in:
  - Right Tonsil: SUV=4.2
  - Ipsilateral Lymph Nodes
  - No other metastatic disease

### IMPRESSION

➤ Findings consistent with primary tonsillar squamous cell cancer, with localized metastatic cervical lymph nodes.

### DISCUSSION

➤ This case illustrates the value of PET/CT to identify unknown primary tumors in the neck, and guide treatment. Prior to the PET/CT, the primary lesion was unknown. Likely clinical course of action without PET would have been to wait until primary tumor increases in size to enable detection by CT or MRI.

### Featured Indication:

#### Head and Neck Cancers

PET/CT has been shown to be of increasing value in the staging and management of patients with various cancers. While CT alone provides high-resolution morphologic information, diagnoses are usually based on lesion size. Studies have shown, however, 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.<sup>1</sup>

Regarding head and neck cancers in particular, PET/CT has been shown to provide additional useful information beyond traditional imaging (eg, CT) to locate unknown primary squamous cell tumors (UPT), assess tumor recurrence and help guide treatment.

Regelink, et al, showed that the sensitivity and specificity of PET for the detection of UPT's were 100% and 94%, respectively, while CT was 92% and 76%. PET had an exclusive effect on the therapy of 20% of those patients.<sup>2</sup>

The functional information provided by PET is critical in patients who have undergone radical tumor resection because the dramatically altered anatomy can make morphologic evaluation via CT or MRI difficult. Schwartz et al, showed that PET/CT sensitivity was 100% and specificity was 90% in identifying recurrent primary and metastatic nodes, and "outperforms any combination of traditional staging techniques."<sup>3</sup>

1. Antoch et al, *Journal of Clinical Oncology*, Vol. 22, No. 21, November 1 2004
2. Regelink, C., et al, *Eur J Nucl Med Mol Imaging*, 28(8):1024-30, August 2002.
3. Schwartz, *Arch Otolaryngol Head Neck*, Vol. 129,; 1174-1178, Nov 2003.

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# The Stage

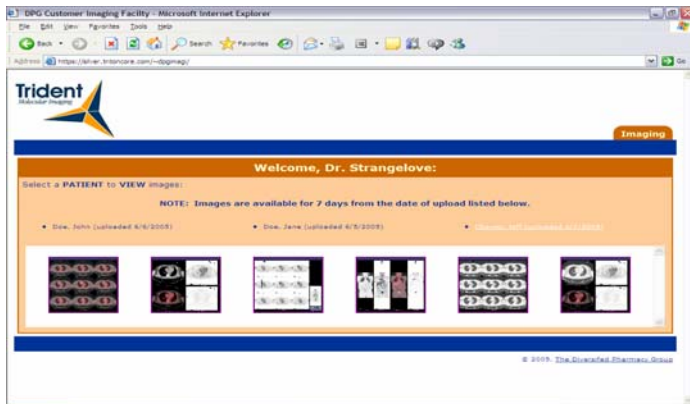
December 2005

## The Images you've seen

on films delivered with each patient's transcribed report are now available for your review online with Trident's new

**Online Image Viewer.** Features include:

- Secure web server for two week storage
- Secure log-in and password for each physician
- jpg file format for PET/CT images
- pdf file format for transcribed report
- Email notification that images are ready for viewing
- Downloadable files for printing or archiving



Check with your Trident Professional Services Coordinator about registering for this useful tool.

## Coming Soon...

in early 2006, more Medicare-approved oncology applications for PET/CT!

## To Order a PET/CT Scan:

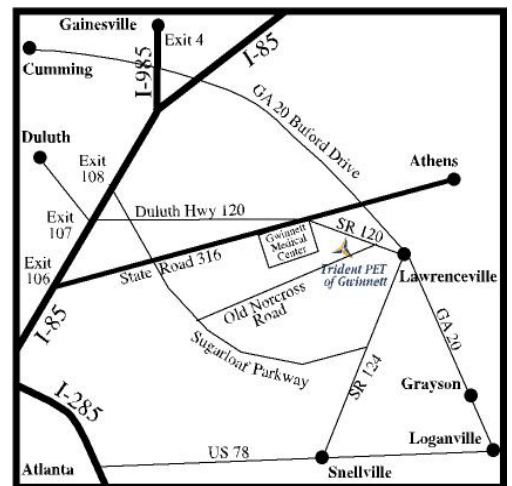
Call: 770-513-2499

Fax: 770-513-2715

Email:

[infogwinnett@tridentpet.com](mailto:infogwinnett@tridentpet.com)

**Trident PET of Gwinnett**  
545 Old Norcross Road,  
Suite 200  
Lawrenceville, GA 30045



770-513-2499

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