Adenocarcinoma of the Lung

May 05, 2011
By Laurence J. Spitzer, MD [1]

Clinical History

This is a 76-year-old male with past medical history of prostate cancer (2005) for which he received external beam radiotherapy. He has been doing well since that time, without symptoms. The patient’s most recent PSA level was 0.2.

The patient also has history of right upper lobe lung cancer, a poorly differentiated adenocarcinoma, T2, N2, M0, Stage IIIa, in 2008, treated with radiation and chemotherapy, only. (See Fig. 1)

Figure 1: Contrast enhanced CT Chest demonstrating the patient's initial primary malignancy of the lung. A right upper lobe adenocarcinoma.
1a) Axial Image, Lung Window
The patient only received limited chemotherapy secondary to side effects, but did receive his full course of XRT, with decrease in size of the tumor on follow up CT exams. (Not shown)

PET/CT performed in Feb. 2010 (not shown) demonstrated stable activity in the right upper lobe, and no new areas of FDG uptake.

The patient was in his usual state of health, until he began experiencing left-sided neck pain and a left sided ear ache. He went to see an ENT physician who referred him to get an MRI of his neck. (Fig. 4)

This demonstrated a 3.0 cm solid nodule within the left lobe of the thyroid. Subsequent ultrasound showed an enlarged left lobe of the thyroid, without a discrete nodule (Fig 2).

PET/CT scan demonstrated a focus of FDG uptake, localized to the left lobe of the thyroid gland, with SUV value of 9.3. (Fig. 3)

Decision was made to perform an FNA biopsy of the left thyroid, under ultrasound guidance.

*Figure 2: Thyroid Ultrasound*

2a) Left Lobe Saggital
2b) Left Lobe Transverse

Figure 3: PET/CT
Adenocarcinoma of the Lung
Published on Diagnostic Imaging (http://www.diagnosticimaging.com)

Figure 4: MRI Neck - Axial T2 weighted image at the level of the thyroid gland, demonstrates a solid nodule within the left lobe


**Diagnosis**
Adenocarcinoma of the lung with metastasis to the thyroid.

**Discussion**
Metastasis to the thyroid gland is rare and is found mainly in autopsy. There, incidence is reported to
be from 1.25 to 24 percent. The most common malignancies include breast, lung and kidneys. Metastasis to the thyroid accounts for 2 to 3 percent of all thyroid malignancies. Of the pulmonary malignancies, adenocarcinoma is the most common, followed by squamous and small cell. FNA biopsy is recommended as the next diagnostic study, to confirm the clinical diagnosis, and to confirm the finding on the PET study. Metastatic disease in the thyroid indicates a poor prognosis, especially in the case of a lung carcinoma. Average survival from the time of diagnosis to death is about two months.

References:

- WebMD

Laurence J. Spitzer, M.D., is Associate Director, Department of Radiology, Montgomery Hospital Norristown, PA.

Disclosures:

Source URL: [http://www.diagnosticimaging.com/articles/adenocarcinoma-lung](http://www.diagnosticimaging.com/articles/adenocarcinoma-lung)

Links:
[1] [http://www.diagnosticimaging.com/authors/laurence-j-spitzer-md](http://www.diagnosticimaging.com/authors/laurence-j-spitzer-md)