

Radiology Report
07/06/2007

Oblique Chest (Digital)

History: ? Nodule right infrahilar region on chest x-ray 6/30/2007

Findings: On the left anterior oblique radiograph, soft tissue density approximately 2 cm x 2.5 cm is seen and a lung nodular mass cannot be excluded. The patient will be recalled by Radiology for CT of the chest for further evaluation.

Radiology Report
08/29/2007

Chest CT (Digital)

Clinical History: Possible right hilar mass on chest x-ray

Findings: Contiguous 5 mm axial cuts were obtained using IV contrast material. There is a mass in the right middle lobe measuring 2.0 x 3.3 cm. The lungs are otherwise clear. No enlarged hilar or mediastinal nodes are identified. No evidence of pleural or pericardial effusion. Scans continued into the upper abdomen show no liver lesions or adrenal masses.

Impression: There is a mass in the right middle lobe, bronchogenic carcinoma to be excluded.

History & Physical
09/20/2007

History of Present Illness: The patient is a 58-year-old black female who presents to me because of right middle lobe abnormal density.

The patient is known to have depression, hypertension, degenerative joint disease, and chronic backaches/chronic knee pains.

Recently, she underwent left knee surgery, and during the process routine chest x-ray was taken. Chest x-ray showed her to have a right middle lobe density and this led to CT scan of the chest.

CT scan of the chest shows the patient to have 2 x 3 cm size noncalcified nodules without any hilar or mediastinal lymph node enlargement. There are no other significant findings in the lung parenchyma. It is to be noted that no previous chest x-rays are available going back at least to 1996. The patient does not remember having had chest x-rays even before that, which we could get.

The patient denies any cough, expectoration, hemoptysis, fever, night sweats, anorexia, or weight loss. The patient denies any significant pulmonary symptoms.

Medications: The patient is on Wellbutrin, Celexa, atenolol, and Darvocet.

Review of Systems: Otherwise noncontributory

The patient denies having been told to have pneumonias, tuberculosis, skin test positive for tuberculosis, histoplasmosis. She does have occasional hayfever symptoms. She denied living in any endemic areas for histoplasmosis or coccidioidomycosis. She works with the environmental service and there is no history of exposure to asbestos, silica, industrial radioactive materials, mining, welding, sawmill dust, sandblasting, or any other noxious chemicals or fumes. The patient was concerned about usual chemicals used for cleaning in her line of work.

The patient denies any unusual hobbies and there is no history of exposure to any unusual animals.

Physical Examination:

General: At the time of her examination, the patient was in no acute distress.

Vital Signs: Her pulse was 59 per minute and regular. Blood pressure 155/90 mmHg.

Temperature 98.2 Fahrenheit. Respiration rate 16/minute. Oxygen saturation at room air was 98%.

HEENT: Unremarkable. Tubular veins were not distended.

Neck: Trachea was central and easily movable. No masses are felt in the neck region.

Chest: Chest wall was symmetrical. There were no focal areas of chest wall tenderness.

Lungs: Breath sounds are vesicular. There were no crackles, wheezes, or rhonchi.

Heart: Essentially unremarkable

Abdomen: Essentially unremarkable

Extremities: Essentially unremarkable, except for scar of recent surgery involving anterior portion of left knee

Assessment: The patient has a 2 x 3 cm size density in the right middle lobe. This has the appearance of a benign lesion; however, malignancy is not excluded. The patient has never smoked in her life and has not lived in any endemic areas for histoplasmosis or coccidioidomycosis. No previous x-rays are available.

Plan: The patient was advised to have positron emission tomography and come back to me for followup after this study has been completed. Further management will be done as necessary at that stage.

Radiology Report
10/04/2007

Positron Emission Tomography with CT Attenuation Correction

Clinical History: A 3 cm right middle lobe lesion. No previous x-rays.

Findings: Dose: F18-fluorodeoxyglucose 9.6 mCi

Approximately 1 hour after injection of the radiopharmaceutical, a CT scan was obtained from the base of the brain to just beyond the inguinal region. Please note that this was a 6-slice noncontrast CT intended expressly for the purposes of soft tissue attenuation and gross anatomic localization of FDG abnormalities. It is not intended to be a diagnostic CT scan and will not be read as such.

An emission study was obtained of the same in 6 bed positions, 5 minutes per bed position. Data were corrected for tissue attenuation and reconstructed in the transaxial, coronal and sagittal planes for slice-by-slice review.

Focal abnormal increased radiotracer activity is noted within an abnormality in the right middle lobe of the lung. Radiotracer distribution is otherwise physiologic throughout the visualized portion of the body.

Impression: Probable stage I lung cancer

Consultation
10/31/2007

Chief Complaint: Right middle lobe mass

History of Present Illness: The patient is a 58-year-old woman who presents for right middle lobe abnormality seen on chest x-ray. The patient recently underwent left knee surgery and during the process had a routine chest x-ray. The chest x-ray demonstrates a right middle lobe density, which led to a followup CT scan of the chest. CT scan of the chest showed a 2 x 3 cm noncalcified right middle lobe mass without any evidence of hilar or mediastinal lymph node involvement. There were no significant findings noted in the lung parenchyma. The patient does not remember having had any chest x-rays prior to this. The patient denies any systemic complaints. The patient denies any cough, hemoptysis, fever, night sweats, anorexia or any weight loss. The patient denies any significant pulmonary symptoms. Followup PET scan obtained on the 4th of October 2007 demonstrated increased uptake in this right middle lobe mass without any evidence of hypermetabolic adenopathy.

Past Medical History: Significant for hypertension, degenerative joint disease and depression

Past Surgical History: Left total knee arthroplasty in August of this year

Current Medications: Wellbutrin, Celexa, atenolol and Darvocet.

Allergies: The patient has reported allergies to sulfa, Flagyl and Cipro, all of which cause rash. The patient reports an adverse reaction to morphine which includes drowsiness and altered mental status during his last hospitalization.

Family History: Unremarkable

Social History: The patient is a nonsmoker. The patient reports occasional alcohol use. The patient denies any history of IV drug abuse. The patient denies living in endemic areas for coccidioidomycosis or histoplasmosis. No known reactive tuberculosis skin tests.

Review of Systems: Otherwise unremarkable

Physical Examination:

Vital Signs: Temperature 98, blood pressure 136/84, pulse 76, weight 207

General: A well-developed, well-nourished female in no apparent distress.

HEENT: Examination is unremarkable

Neck: Supple, without masses. There is no adenopathy.

Chest: Clear to auscultation bilaterally. There is no evidence of supraclavicular adenopathy.

Cardiovascular: Regular rate and rhythm without murmur.

Abdomen: Soft, nontender, nondistended.

Extremities: Warm and well-perfused. There is a well healed scar in the lower extremity.

Imaging: Chest x-ray demonstrates a 2 x 3 cm right middle lobe mass. This is confirmed on CT scan. There is no evidence of adenopathy. PET scan from 4 October 2007 demonstrates increased uptake in the right middle lobe mass.

Impression: This is a 58-year-old woman who is a nonsmoker who has a 2 x 3 cm right middle lobe nodule on CT scan which demonstrates increased uptake on PET scan. This is worrisome for malignant process.

Plan of Care: The patient is scheduled to undergo thoracotomy and right middle lobectomy on November 1, 2007 with doctor. The patient will obtain preoperative pulmonary function tests this afternoon. Preoperative laboratories have been drawn and sent today. Risks and benefits of surgery have been discussed with the patient. Benefits included resection of what could possibly be a stage II cancer. Discussed risks included, but were not limited to, bleeding, infection, scar, prolonged intubation or need for tube thoracostomy, bronchopleural fistula, empyema requiring video-assisted thoracoscopic surgery, deep venous thrombosis with pulmonary embolus, myocardial infarction, stroke and death. All questions were answered. The patient verbalized understanding and wishes to proceed on November 1, 2007. The patient will be made n.p.o. after midnight tonight.

Pathology Report
11/01/2007

Specimen:

- A. Right chest tissue
- B. Right middle lobe
- C. Pretracheal lymph node

Surgical Procedure: Thoracotomy, right

Gross Description:

Part A. The specimen container is labeled "Patient, A. Right chest tissue." The specimen is yellow fat, 3.8 x 1.2 x 1 cm. It has a smooth surface compatible with lipoma. (X-0).

Part B. The specimen container is labeled "Patient, B. Right middle lobe." The specimen is a 65 gram pink and red hemorrhagic piece of lung, 9 x 9 x 3.5 cm. There are four nearly touching staple lines that are over a 9 x 2 cm area. Less than 5 cm from one of these staple lines, the lung has been divided across a 5.3 x 2.7 x 2 cm tumor that is relatively well circumscribed tan and brown. The suture lines are removed. The tissue adjacent to the suture line nearest to tumor is marked yellow. Sections of the surface marked yellow submitted in cassette #1. Tumor, cassettes #2-5. The tumor lies just beneath the pleural surface. Section of the bronchial margin near the stapled suture line, cassette #6. Possible lymph node tissue adjacent to the bronchus, cassettes #7 and 8. A tan 2 cm diameter lymph node that is 1.6 cm from the surgical margin (cassettes #9 and 10). Other grossly benign lung tissue near the bronchus, cassette #11.

Part C. The specimen container is labeled "Patient, C. Pretracheal lymph node." The specimen is a piece of yellow fat 2.5 x 1.5 x 1 cm. There is a black 7 x 4 mm area. (X-0) Cassettes #1-2.

Specimen

Right middle lobe, thoracotomy
IHC Routine

Diagnosis:

Immunohistochemistry:

CAM5.2	-positive
TTF-1	-negative, positive internal control
CDX-2	-negative, positive external control
Ki67	-positive, 5%
Synaptophysin	-positive
Chromogranin	-positive

Immunohistochemistry

Lung, Right middle lobe, Lobectomy

- The morphologic and immunophenotypic findings are consistent with carcinoid tumor (see comment). (a9)

Comment:

The sections show an epithelial cell proliferation with oval to spindled nuclei and finely granular chromatin, in nests and trabecular pattern. The tumor cells are positive for CAM5.2, Synaptophysin and Chromogranin, with a proliferation index (Ki67) of less than 5%. The overall findings are consistent with a carcinoid tumor. However, the immunohistochemical analysis provides no specific support for a primary site (primary versus metastatic). Correlation with other clinical and radiologic findings is suggested. The findings were discussed with doctor on 11/09/2007.

Please Note:

The immunoperoxidase stain(s) reported above was developed and its performance characteristics determined by the Regional Immunohistochemistry Laboratory/The Permanente Medical Group, Inc., Northern California. It has not been cleared or approved by the U.S. Food and Drug Administration, although such approval is not required for analyte-specific reagents of this type.

Final Diagnosis:

- A. Benign fat compatible with lipoma, right chest tissue specimen.
- B. Carcinoid tumor involving three foci up to 5.3 cm greatest dimension with metastatic carcinoid tumor within a lymph node, right middle lobe specimen. The three nodules of carcinoid tumor are 5.3 cm (slides B2-5), 2 cm (slides B9-10), and 1.2 cm (slide B8) greatest dimension. The carcinoid tumor in slide B5 lies just beneath the pleural surface, but is not seen on the pleural surface. There is a 0.5 mm focus of metastatic carcinoid tumor to a peribronchial lymph node over 7 mm greatest dimension (slide B6). There are five benign peribronchial lymph nodes (slides B6 and B7).
- C. Eight benign lymph nodes, pretracheal lymph node specimen.

Note: This case has been reviewed by doctor at the department of pathology. Doctor finds a tumor consistent with carcinoid tumor and comments, "The overall findings are consistent with a carcinoid tumor. However, the immunohistochemical analysis provides no specific site for a primary site (primary versus metastatic). Correlation with other clinical and radiologic findings is suggested."

Doctor's report was faxed to doctor's office November 11, 2007.

The preliminary diagnosis was placed on doctor's phone mail November 3, 2007, and the final diagnosis November 14, 2007.

Patient MR# 777702
Patient Name: Mary Lane

Lung Advanced Case #2
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Consultation
12/16/2007

Patient is a 58-year-old female 6 weeks post right middle lobectomy for multiple carcinoids.

Subjective: Doing well, no problems, does not need chemo

Objective: BP 140/80, pulse 70, temp 97.8, resp. 16

Lungs clear

Wound well healed

No cervical adenopathy

Chest x-ray: Clear with post op changes

Assessment: Satisfactory post op course