Great Cases

Clinical, Radiologic and Pathologic Correlations by Master Physicians

ATS 2022

ATS 2022

Great Cases:
Clinical, Radiologic & Pathologic Correlations by Master Physicians

Organized by the Council of Chapter Representatives

Chairing:	**Manoj J. Mammen, MD,** Buffalo, NY **Jennifer Trevor, MD,** Birmingham, AL
Master Clinicians:	**John H. Hansen-Flaschen,** MD, ATSF, Philadelphia, PA **Sharon I. Rounds, MD,** Providence, RI **Paul C. Stillwell, MD,** Aurora, CO
Master Radiologist:	**Alison G. Wilcox, MD,** Arcadia, CA
Master Pathologist:	**Jeffrey L. Myers, MD**, Ann Arbor, MI

CONTENTS

CASE 1

As Lady Macbeth Would Say, 'Out, Damn'd Spot'

Theresa S. Yang, MD. Woodland Hills, CA

A 68-year-old woman with diabetes and remote history of breast cancer treated with radical mastectomy and chemotherapy, presented with cough and low-grade fevers and was treated for community acquired pneumonia. A follow up chest X-ray of the chest after treatment showed persistent right lower lobe opacification. Serologies for endemic fungi and tuberculosis were negative. CT of the chest showed an enlarged right hilar node causing mass effect on the distal right main pulmonary artery measuring 2.1 cm. Bronchoscopy with endobronchial ultrasound (EBUS) was performed.

What is the next best step in management?

1. Repeat bronchoscopy with EBUS guided biopsy
2. Surgical resection
3. PET scan
4. MRI thorax
5. Trial of anticoagulation
6. Interventional radiology angiography and intravascular biopsy

What is the most likely diagnosis?

1. Organized thrombus
2. Tuberculosis
3. Lymphoma
4. Histiocytic disorder
5. Leiomyoma

CASE 2

Their Lives a Mimicry

Mikiyas Desta, MD, New York, NY

A 33-year-old female with no significant past medical history presented to an urgent care center with intermittent atypical chest pain of 2 months duration. She denied fever, cough, or shortness of breath. She did not have asthma, use tobacco, or have a family history of malignancy. Physical exam and laboratory evaluation were unremarkable.

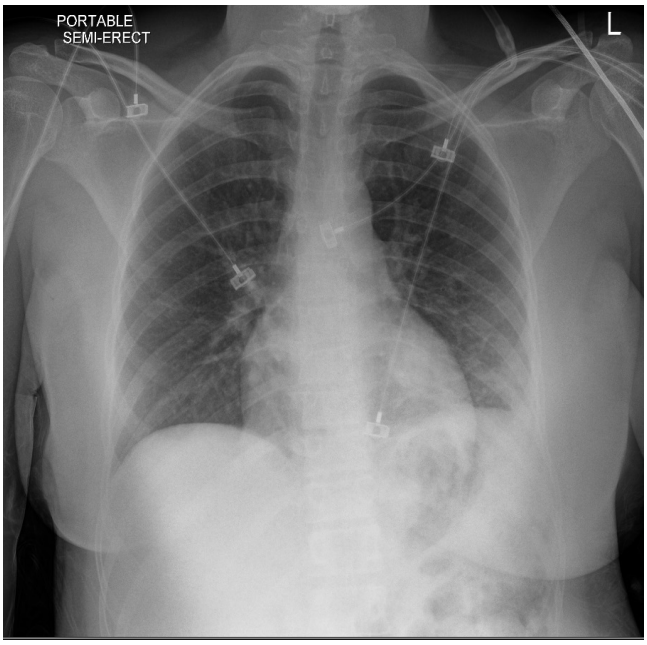
Chest XR revealed a left lower lobe nodule. A follow up Chest CT was performed and revealed a 2 cm well defined solid nodule located centrally in the anterior basilar segment of the LLL without signs of endobronchial extension. The patient then underwent an endobronchial ultrasound guided transbronchial biopsy. Pathology findings were discussed on Tumor Board and the patient then underwent successful LLL basilar segmentectomy with resolution of chest pain

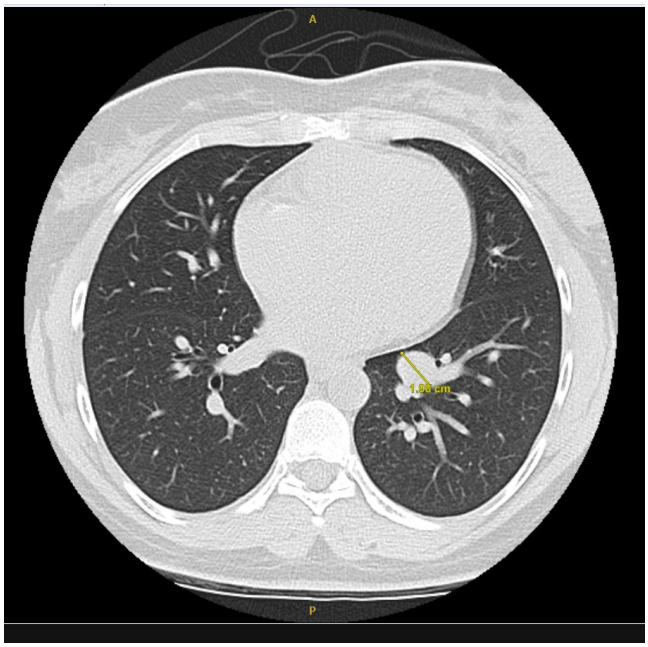
What is your diagnosis?

1. Carcinoid Tumor
2. Hamartoma
3. Lung Metastasis
4. Pneumocytoma
5. Primary Lung Cancer

What is the typical clinical course of this disease?

1. Benign and low likelihood of malignant transformation
2. Benign and high likelihood of malignant transformation
3. Malignant on diagnosis without metastasis
4. Malignant on diagnosis with metastasis





CASE 3

When Lungs Get Struck by Halley's Comet

Presented by Hana Rajevac, MD, Burlington, MA

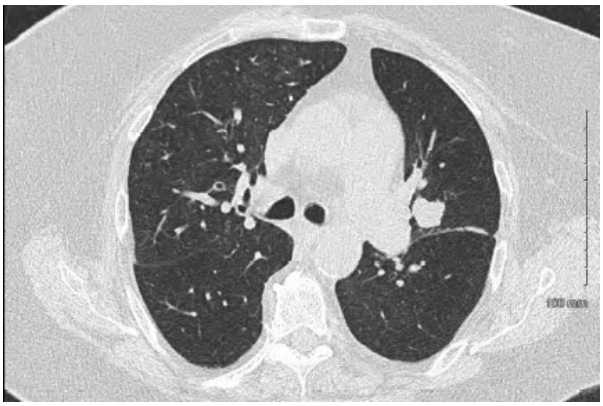
83-year-old female with history of COPD and 15 pack years of tobacco use presented for evaluation of shortness of breath. Physical exam and laboratory test values were without significant abnormalities.
An initial chest x-ray was suspicious for left upper lobe nodule. Follow-up CT chest confirmed presence of a 16 mm left upper lobe nodule with suggestion of an endobronchial mass. The nodule was PET AVID (SUV 5.7), with no associated mediastinal lymphadenopathy. The patient underwent bronchoscopy with biopsy.

What is the most likely diagnosis?

1. Hamartoma
2. Carcinoid tumor
3. Mucoepidermoid carcinoma
4. Schwannoma
5. Polymorphic adenoma

What is your next step in management?

1. Left Pneumonectomy
2. Chemoradiation
3. No need for further follow up
4. Systemic chemotherapy
5. Localized Debulking with repeat CT chest in 6 months

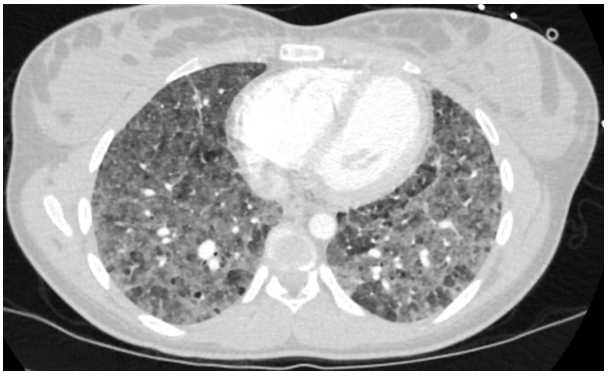


CASE 4

There Must Be Something in the Water

Presented by Jessica Reyes-Angel, MD, Pittsburgh, PA

A 17-year-old, previously healthy female, developed dyspnea after using her indoor jacuzzi for 3 hours a day on an almost daily basis for over a year. She had developed juvenile idiopathic arthritis 4 months prior to presentation and added an oil-based body wash to her bath. Her dyspnea progressed and a dry cough after bathing developed. She presented to the emergency department in acute hypoxemic respiratory failure. Chest CT demonstrated extensive bilateral ground-glass opacities with upper lobe predominance. Immunologic studies showed elevated inflammatory markers, +ANA titers, IgA/IgG hypogammaglobulinemia, lymphopenia, and undetectable vaccine titers.Her QuantiFERON Gold test was positive. A Bronchoalveolar Lavage showed a lymphocytic/neutrophilic inflammation, high CD4:CD8 ratio, and moderate numbers of lipid-laden macrophages. Routine cultures were negative. She subsequently underwent an open lung biopsy..



What is your diagnosis?

1. Connective tissue disease.
2. Granulomatous lymphocytic interstitial lung disease.
3. Hypersensitivity- like disease due to non-tuberculous mycobacteria.
4. Pulmonary infection secondary to non-tuberculous mycobacteria infection.
5. Aspiration pneumonia.

What is the most appropriate treatment for this diagnosis?

1. Supportive measures.
2. Broad spectrum antibiotics.
3. Antimycobacterial therapy.
4. Systemic corticosteroids.