




THORACIC CASE

An uncommon case of a common presentation

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Presentation

- A 70-year-old man with a chief complaint of a chronic nonproductive cough that is increasing in severity with associated bouts of hemoptysis for the past five months. He states that the number of episodes and amount of blood per coughing bout has increased significantly in the past month. Notably he has increased fatigue and weight loss for the past year.

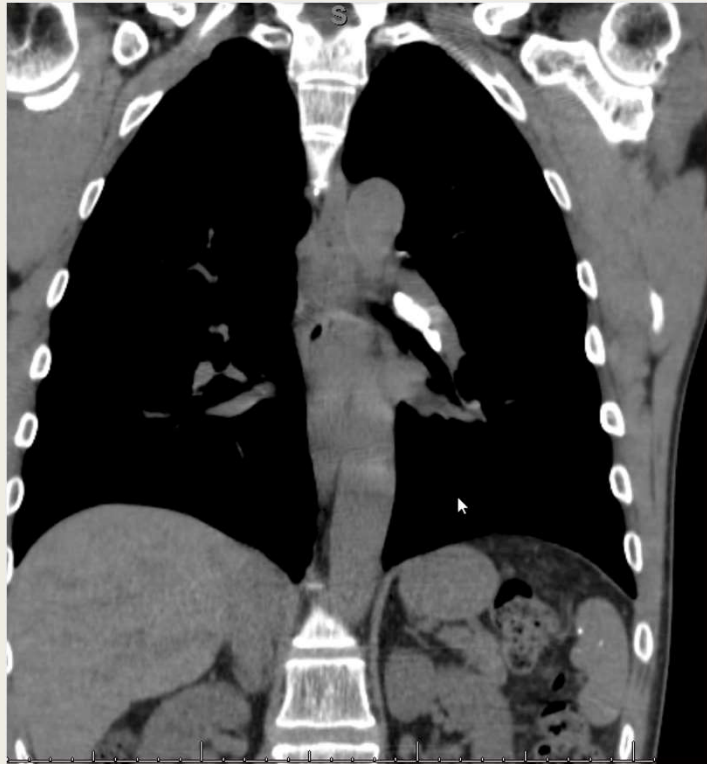
History

- Patient has a significant medical history of:
 - *Obstructive Sleep Apnea*
 - *Gastroesophageal reflux disease*
 - *Chronic Bronchitis*
 - *Chronic Granulomatous disease*
 - Two negative TB PPD skin checks in the past, no recent travel or known recent exposure.

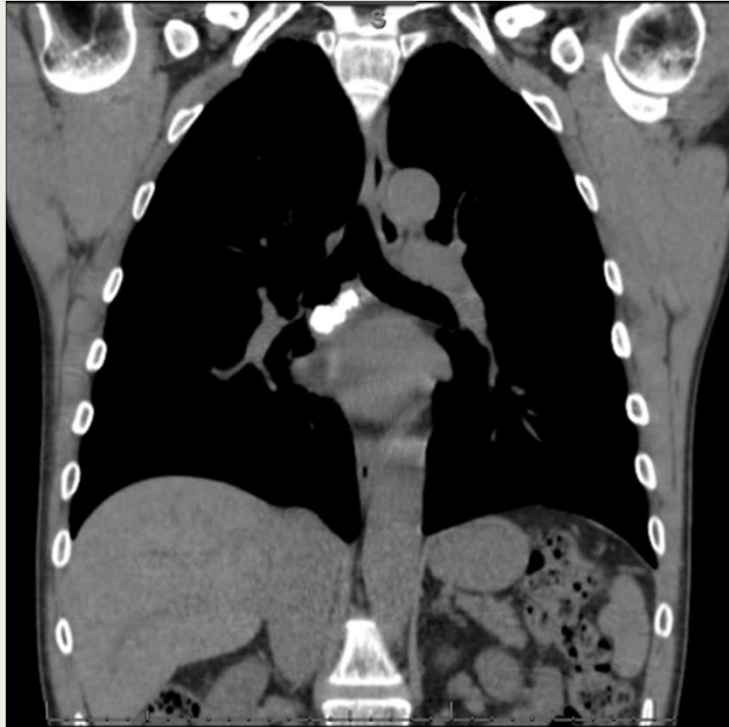
- Past pertinent social history:
 - *Prior Cigarette smoker - 12 years with a bout ¼ ppd.*
 - *Heavy ongoing alcohol use - 8-10 ounces of whiskey per day for years*
 - *Occupational exposure to asbestos*

Physical Exam

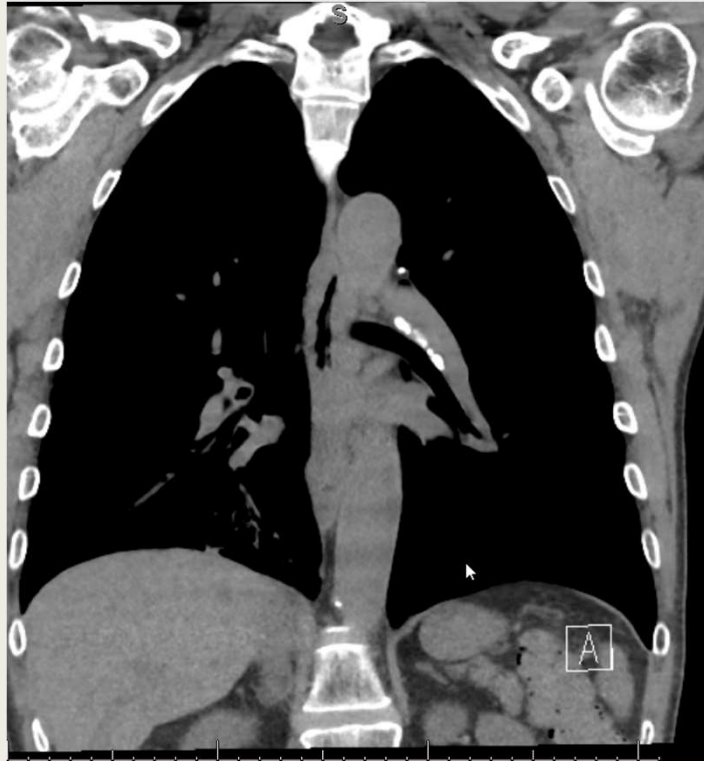
- VITALS:
 - *BP : 142/94, Temp: 97.7 F, Heart Rate: 74, Ht: 6'1, Wt: 159 lbs, BMI: 21.06, SpO2: 100% on Room Air.*
- Cardio: Normal rate and rhythm, No murmurs noted.
- Pulmonary/Chest: Normal Effort, no respiratory distress. No wheezing noted. **Has rales, bilateral expiratory rhonchi.** No consolidations. No clubbing. Normal chest wall excursion.
 - What imaging modalities would you order to better assist in developing a differential?



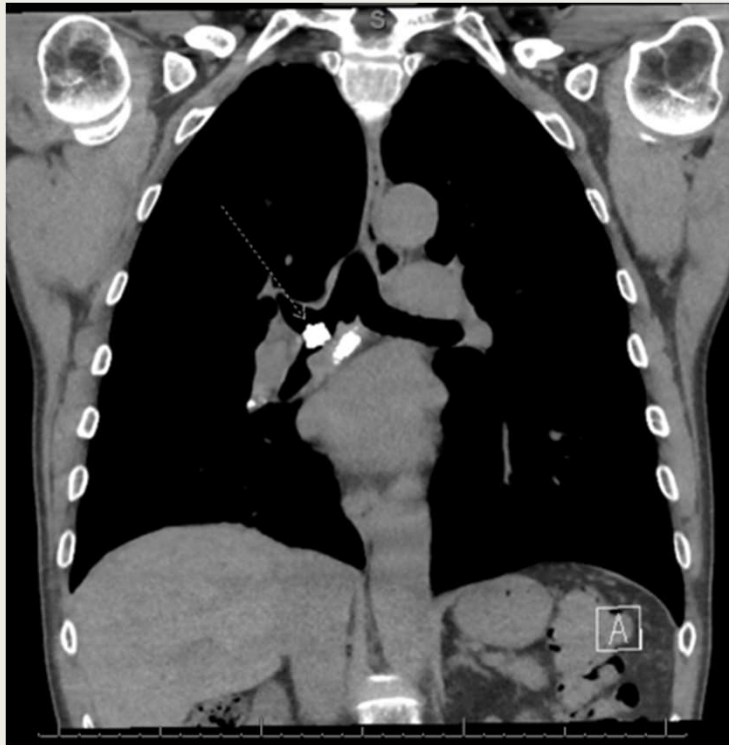
RADIOLOGICAL FINDINGS - BASELINE IMAGING



KEY IMAGE
AT
BASELINE



RADIOLOGICAL FINDINGS – CURRENT PRESENTATION



KEY IMAGE AT CURRENT PRESENTATION

- What diseases are on your differential?

Differential Diagnosis

- Primary Endobronchial Infection
- Calcified Endobronchial Tumor
- Hypertrophied Bronchial Artery with intraluminal Protrusion
- Broncholithiasis
 - Given the known position of the calcium deposit, what diagnostic/therapeutic modality would benefit this patient?



Figure 1



Figure 2

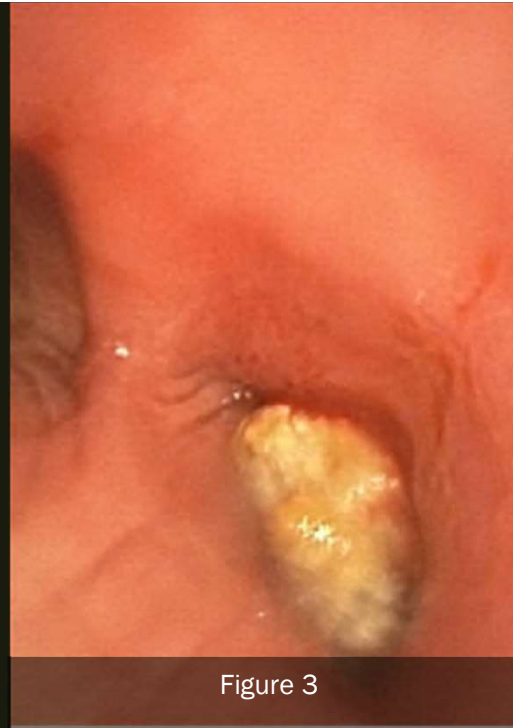


Figure 3

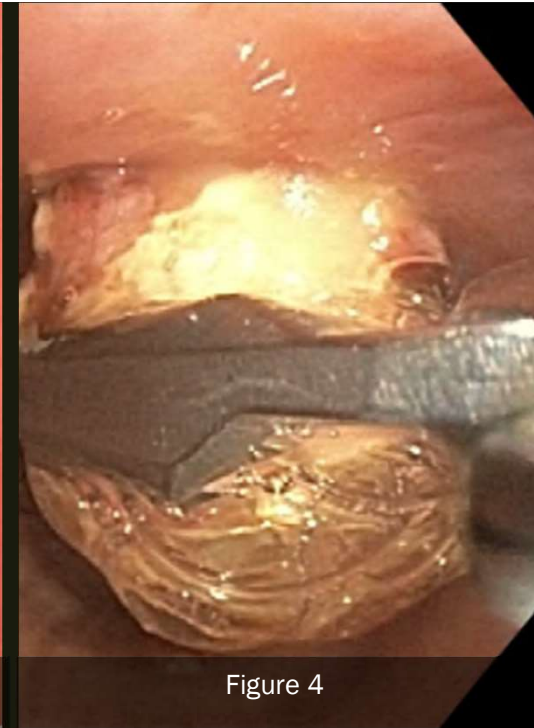


Figure 4

BRONCHOSCOPY FINDINGS

Final Diagnosis - Broncholithiasis

Important information for diagnosis

- Etiology: Most seen in patients who have history of chronic calcified lymph nodes that erode into adjacent bronchi causing hemoptysis and expectoration of small calcium deposits.
- Incidence: Relatively rare clinical presentation.
- Associations: Patients afflicted with Chronic granulomatous diseases (Histoplasmosis, Mediastinal granuloma, Fibrosing mediastinitis, Sarcoidosis).
- Prognosis: Depending on the severity of the disease, management options range from simple observation to surgical resection. Despite the potential for major complications, the overall disease prognosis is good if timely and appropriate management is provided.

References / Sources

- Broncholithiasis: Review of the Causes with Radiologic-Pathologic Correlation
 - *Joon Beom Seo, Koun-Sik Song, Jin Seong Lee, Jin Mo Goo, Hyae Young Kim, Jae-Woo Song, In Sun Lee, Tae-Hwan Lim*
 - Published Online: Oct 1 2002
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- Alshabani K, Ghosh S, Arrossi AV, Mehta AC. Broncholithiasis: A Review. *Chest*. 2019 Sep;156(3):445-455. doi: 10.1016/j.chest.2019.05.012. Epub 2019 Jun 4. PMID: 31173766.
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