PULMONARY PEARLS
Uncommon cause of Hemoptysis

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• SD is a 54 y/o WF with no significant past medical history working in the medical profession who presents to your office after referral from her daughter who is a CT tech because of an abnormal CT and CXR.
• History reveals patient was asymptomatic until 2-3 mos ago when she developed wheezing and shortness of breath.

• SD denies cough until recently when she expectorated a small amount of blood streaked sputum. She denies fever or chills. She notes dyspnea at about 200 feet.
• Interestingly she notes periods of flushing, dizziness and volatile BP of late particularly when she becomes upset.
• She has no exposure to tobacco or pulmonary toxins.
• Her CXR is as follows:
• SD denies weight loss, use of any medications, headaches, recent travel outside of the US.
• She denies aspiration of food
• She has seen several physicians who have treated her wheezing with albuterol and inhaled corticosteroids without improvement.
• CT is as follows:

• Appropriate next step would include:
  • a. Bronchoscopy with biopsy
  • b. Endocrine referral
  • c. PET scan
  • d. referral to thoracic surgeon
  • e. add a bronchodilator with mucolytic
• Eventual endocrine workup revealed no endocrine abnormalities
• PFT’s revealed a mild obstructive defect with normal flow/volume loop
• PET scan revealed increased uptake at the site of the CT abnormality only
• Bronchoscopy revealed near complete occlusion of the LMS bronchus at the LUL takeoff with blue vascular lesion. Biopsy proved to be positive for carcinoid.

• After evaluation by local thoracic surgeon referral was made to Nashville thoracic surgeon who performed a sleeve resection of the tumor with good result.
• Patient is yet to be seen in follow-up.

• Pulmonary Pearls
• 1. Carcinoid tumors account for 4% of all bronchial tumors and believed to be very slow growing originating from the neurosecretory cells (Kulchitsky’s cells)
• 2. Carcinoid Syndrome is characterized by episodic flushing, bronchospasm and diarrhea. The diagnosis is established by an increase in 5-HIAA assay in the urine
• 3. Central lesions are highly vascular and may bleed easily on biopsy. Care should be taken if biopsy is intended to maximize hemostasis.
• 4. Resected carcinoid lesions has a 5 year survival of approximately 90%. Atypical variants with carcinoid syndrome are more to have metastases with a 5 year survival of 70%.

Case # 2: 57-yr-old white female with Dyspnea and occasional hemoptysis
PRODUCTS OF CARCINOID TUMORS

Amines
Serotonin 5-Hydroxytryptophan Histamine
Norepinephrine Dopamine
Polypeptides
Bradykinin Pancreatic polypeptide
Kallikrein Motilin Somatostatin
Vasoactive intestinal peptide Neurokinin A Neurokinin B
Substance P Corticotropin (ACTH) Gastrin
Growth hormone Peptide YY Glucagon
Beta-endorphin Neurotensin
Chromogranin A
Prostaglandins