In patient work-up:

- **Initial Laboratory Analysis:** Normocytic Anemia (Hemoglobin 11.6 mg/dL, MCV 90.9 fL).
- **Chest X-Ray:** Small right lung volume with large cavitary lesion in the right upper lung field. There are right lower lobe infiltrates/consolidations, and a small right pleural effusion. See figure 1.
- **CT Pulmonary Embolism:** Large occlusive thrombus in the right main pulmonary artery with non-opacification of the intraparenchymal pulmonary arteries in the right lung. B. There is a bronchopleural fistula extending from the right main bronchus into the pleural cavity with collapse of the right lower lobe. C. There are peribronchial vascular nodular opacities in the left lung, associated with atelectasis. See figure 2.

Discussion

- This case demonstrated significant challenges in the decision to anticoagulate a patient with hemoptysis and pulmonary thrombus of unknown etiology.
- Typical treatment of a pulmonary embolism consists of anticoagulation, however if anticoagulation is contraindicated alternative strategies such as an Inferior Vena Cava Filter or thrombectomy can be implemented.
- Active hemoptysis poses a contraindication to initiating anticoagulation therapy, whereas anticoagulation is the standard management of a pulmonary embolism. The unknown etiology of the embolus further complicates the issue.
- The patient was trialed on multiple attempts of anticoagulation with Lovenox, however these attempts were unsuccessful due to recurrent episodes of hemoptysis.
- There was consideration that the thrombus was formed in situ as the body’s natural response to stop the bleeding as opposed to an embolus. In which case, anticoagulation would not have been the best approach.
- Considering the presence of multiple risk factors of pulmonary embolism, including history of DVT and presentation with hemoptysis and tachycardia, added to this condition being significantly more prevalent than the other, we ruled out this hypothesis.

References