

Answer: B.

This clinical presentation is consistent with sepsis due to a pulmonary abscess, most likely secondary to an anaerobic infection. Pulmonary abscesses occur as a complication of aspiration pneumonia and formation of abscesses occur when aspirates are not properly cleared. Our patient's poor oral dentition and heavy alcohol use places him at risk for an aspiration event. Bronchogenic carcinomas are another risk factor for pulmonary abscess; follow-up outpatient diagnostic bronchoscopy did not reveal endobronchial lesions in our patient.

Treatment of pulmonary abscess is successful in 90% of cases with antibiotics alone without a need for procedural intervention. Absolute indications for consideration of surgical resection include failed medical therapy and complications such as hemoptysis, empyema, and bronchopleural fistula, none of which were present in our patient. Abscess size over 4-6cm places our patient at risk for failed medical therapy but is not an absolute indication for procedural intervention. Surgical resection remains the gold standard for procedural interventions when indicated but both percutaneous tube drainage and endoscopic drainage have been reported with comparable results.

Our patient was treated with two weeks of Ertapenem and transitioned to Amoxicillin/clavulanic acid for 40 days. Repeat CT scan after treatment showed improvement in the size of the abscess (Figure2). He showed marked clinical improvement in outpatient infectious disease clinic follow up appointments. Despite its large size over 6cm, his pulmonary abscess was successfully treated without need for procedural intervention.

Take Home Points:

1. Risk factors for development of pulmonary abscess include poor dentition, risk for aspiration, and airway abnormalities including bronchogenic carcinoma.
2. Antibiotics alone successfully treat 90% of cases of pulmonary abscesses without the need for procedural intervention.
3. Consider thorough evaluation for bronchogenic carcinoma if a patient with presumed pulmonary abscess is not improving from antibiotic therapy.

References:

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