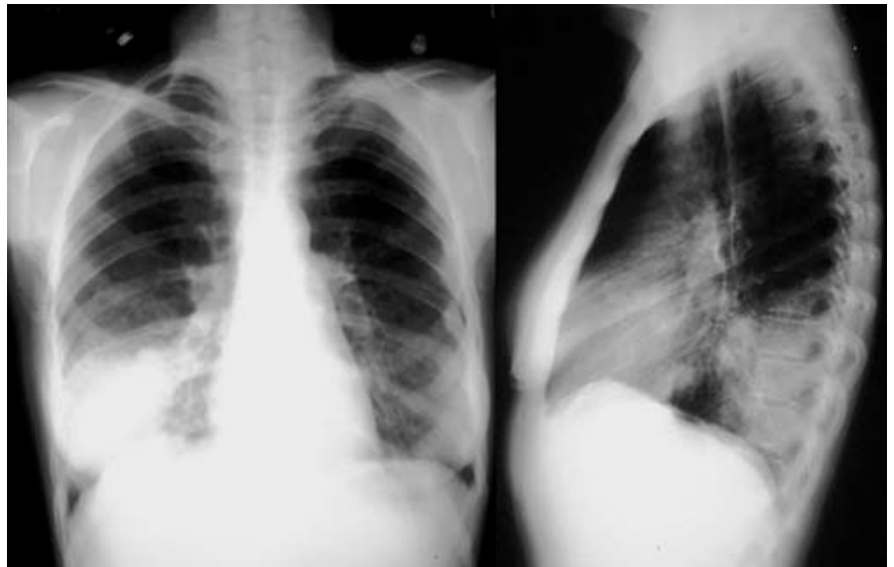


CASE STUDY IX

MC is a 60-year-old black man who lives in his 1958 Nash Rambler. He earns money by collecting aluminum cans along the roadside and from trash dumpsters. He states that he has been coughing up about ¼ cup of white sputum each morning for the past 20 years. About one week ago, he noticed a sudden onset of shaking, chills, fever, sweating, malaise, chest pain, and shortness of breath at rest. He also began coughing up rust-colored sputum that was thicker than his normal sputum production. MC admits to current consumption of two packs per day of cigarettes (i.e. a 70 pack-year smoking history). He admits to occasional alcohol use but denies having orthopnea, ankle edema, nausea, vomiting, diarrhea, weight loss, dysuria, wheezing, or hemoptysis.

On physical exam reveals a chronically ill-appearing elderly male in mild to moderate respiratory distress at rest. Vital signs include a temperature 39°C (102.2° F), heart rate 122/minute, respiratory rate 32/minute, and blood pressure 110/60 mm Hg. Cyanosis is noted around the lips and mouth, however, there is no JVD present. Chest inspection reveals increased AP diameter, diminished resonance on percussion and increased tactile fremitus noted over the right lower lobe posteriorly. Auscultation reveals bronchial breath sounds over right lower lobe posteriorly and clear but diminished breath sounds over entire left lung and right middle and upper lobes. His extremities are cool, moist, and slightly dusky with cyanosis noted in fingertips; however no clubbing or edema is present.

A PA and lateral chest x-ray was obtained and is shown to the right. Laboratory data include a WBC of 4,000/mm³, with segmented neutrophils 60 percent, bands 30 percent, and lymphocytes 10 percent. His hemoglobin was measured at 10.4 g/dL. ABGs on room air show a pH 7.47, PaCO₂ 32 mm Hg, PaO₂ 44 mm Hg, HCO₃⁻ 23 mEq/L. A sputum specimen was obtained which showed numerous gram-positive cocci with many WBCs and epithelial cells.



Prepare a SOAP note based upon the most recent presentation. Give specific pathophysiologic causes of the abnormal objective and subjective findings as part of your assessment and list specific respiratory

care protocols which would be appropriate for this patient (include medications if appropriate).

QUESTIONS:

- How would you interpret the ABGs?
- How would you interpret the CBC?
- Which bacterium would you anticipate to be the most likely causative agent?