**A 60 year old gentleman smoked one pack/day of cigarettes for the past 35 years developed a severe cough with hemoptysis over the past 2 month with 10-kg weight loss over the past year. On examination, he is afebrile. Labs show a serum Na+ of 120 mmol/L; K+, 3.8 mmol/L; Cl–, 90 mmol/L; CO2, 24 mmol/L; glucose, 75 mg/dL; creatinine, 1.2 mg/dL; calcium, 8.1 mg/dL; phosphorus, 2.9 mg/dL; and albumin, 4.2 g/dL. Which of the following findings is most likely to be seen on a chest radiograph?**

**A Bilateral upper lobe cavitation**

**B Extensive areas of infiltrates**

**C Invasive perihilar mass**

**D Subpleural nodule with hilar adenopathy**

**The correct answer is C**

The patient probably has a small cell carcinoma of the lung, which is most likely to produce A paraneoplastic syndrome with the syndrome of inappropriate secretion of antidiuretic hormone (SIADH), marked by free water retention with **hyponatremia** (as in the lab results above, since Normal sodium levels are usually between 136 and 145 millimoles per liter (mmol/L) ).

Small cell cancers tend to be central masses, and they are strongly associated with smoking.

Upper lobe cavitation suggests secondary tuberculosis (as you will learn in TB lecture).

Infiltrates can suggest an inflammatory process.

A subpleural nodule with hilar adenopathy is the classic Ghon complex of primary tuberculosis, which is unlikely to manifest with hemoptysis.