

QUESTION
 A 65-year-old male patient with a long history of hypertension and hyperlipidemia presents to the clinic with a 2-week history of increasing fatigue, weight loss, and intermittent fevers. He reports a recent episode of coughing up blood. Physical examination reveals a 2-cm, firm, nontender nodule in the right upper lung field. Laboratory studies show a hemoglobin of 10 g/dL, hematocrit of 30%, and a white blood cell count of 12,000/mm³ with a left shift. A chest X-ray shows a 3-cm, spiculated nodule in the right upper lobe. A CT scan of the chest shows a 4-cm, solid, enhancing mass in the right upper lobe with associated lymphadenopathy. A biopsy of the mass shows a poorly differentiated adenocarcinoma. The patient is diagnosed with stage IIIB non-small cell lung cancer.

ANSWER
 The most appropriate initial treatment for this patient is a combination of chemotherapy and radiation therapy. The patient's performance is good, and he is a candidate for curative-intent therapy. The standard of care for stage IIIB non-small cell lung cancer is a combination of platinum-based chemotherapy (such as cisplatin or carboplatin) and paclitaxel, along with concurrent thoracic radiation therapy. This approach has been shown to improve overall survival compared to chemotherapy alone. The patient should be counseled about the potential side effects of both treatments, including myelosuppression, hair loss, and esophagitis.

ANSWERS TO QUESTIONS

1. A The patient's symptoms of fatigue, weight loss, and coughing up blood are concerning for a primary lung malignancy. The physical examination finding of a nodule in the right upper lung field and the chest X-ray findings of a spiculated nodule in the right upper lobe are also suggestive of a lung mass. The CT scan findings of a solid, enhancing mass in the right upper lobe with associated lymphadenopathy further support the diagnosis of a lung malignancy. The biopsy findings of a poorly differentiated adenocarcinoma confirm the diagnosis.

2. B The patient's performance is good, and he is a candidate for curative-intent therapy. The standard of care for stage IIIB non-small cell lung cancer is a combination of platinum-based chemotherapy and paclitaxel, along with concurrent thoracic radiation therapy. This approach has been shown to improve overall survival compared to chemotherapy alone.

3. C The patient's symptoms of fatigue, weight loss, and coughing up blood are concerning for a primary lung malignancy. The physical examination finding of a nodule in the right upper lung field and the chest X-ray findings of a spiculated nodule in the right upper lobe are also suggestive of a lung mass. The CT scan findings of a solid, enhancing mass in the right upper lobe with associated lymphadenopathy further support the diagnosis of a lung malignancy. The biopsy findings of a poorly differentiated adenocarcinoma confirm the diagnosis.