

Christine Whylings, DO, Bryan G. Kane, MD  
From the Lehigh Valley Health Network, Bethlehem, PA.

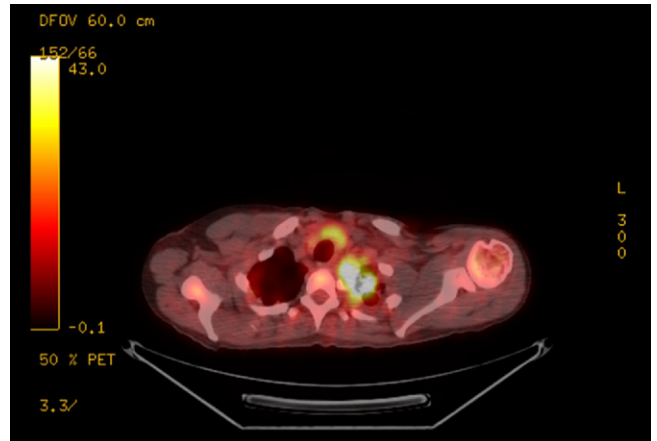
0196-0644/\$-see front matter  
Copyright © 2010 by the American College of Emergency Physicians.  
doi:10.1016/j.annemergmed.2010.04.013



**Figure 1.** Patient presentation.

[Ann Emerg Med. 2011;57:203.]

A 54-year-old woman presented to the emergency department, complaining of severe back and left shoulder pain. She had a history of metastatic non-small-cell lung cancer refractory to radiation and chemotherapy. She was in moderate distress: tachycardic, tachypneic, and diaphoretic. Her physical examination demonstrated ipsilateral eyelid ptosis and pupillary miosis, along with left-sided facial anhidrosis, which was profound in comparison with the diaphoresis observed on the rest of her body (Figure 1). The patient had a recent outpatient positron emission tomography computed tomographic scan performed (Figure 2).



**Figure 2.** Recent PET scan. Used with permission of Christine Whylings, DO, and Bryan G. Kane, MD, Department of Emergency Medicine, Lehigh Valley Health Network, Bethlehem, PA.

*For the diagnosis and teaching points, see page 212.*

*To view the entire collection of Images in Emergency Medicine, visit [www.annemergmed.com](http://www.annemergmed.com)*

15. Boersma E, Pieper KS, Steyerberg EW, et al. Predictors of outcome in patients with acute coronary syndromes without persistent ST-segment elevation. Results from an international trial of 9461 patients. The PURSUIT Investigators. *Circulation*. 2000;101:2557-2567.
16. Granger CB, Goldberg RJ, Dabbous O, et al. Predictors of hospital mortality in the global registry of acute coronary events. *Arch Intern Med*. 2003;163:2345-2353.
17. Moscucci M, Fox KA, Cannon CP, et al. Predictors of major bleeding in acute coronary syndromes: the Global Registry of Acute Coronary Events (GRACE). *Eur Heart J*. 2003;24:1815-1823.
18. Subherwal S, Bach RG, Chen AY, et al. Baseline risk of major bleeding in non-ST-segment-elevation myocardial infarction: the CRUSADE (Can Rapid Risk Stratification of Unstable Angina Patients Suppress Adverse Outcomes With Early Implementation of the ACC/AHA Guidelines) Bleeding Score. *Circulation*. 2009;119:1873-1882.
19. Antman EM. TIMI 11B. Enoxaparin versus unfractionated heparin for unstable angina or non-Q-wave myocardial infarction: a double-blind, placebo-controlled, parallel-group, multicenter trial. Rationale, study design, and methods. Thrombolysis in Myocardial Infarction (TIMI) 11B Trial Investigators. *Am Heart J*. 1998;135(6 pt 3):S353-360.
20. Fox KA, Goodman SG, Klein W, et al. Management of acute coronary syndromes. Variations in practice and outcome: findings from the Global Registry of Acute Coronary Events (GRACE). *Eur Heart J*. 2002;23:1177-1189.
21. Giugliano RP, White JA, Bode C, et al. Early versus delayed, provisional eptifibatid in acute coronary syndromes. *N Engl J Med*. 2009;360:2176-2190.

## IMAGES IN EMERGENCY MEDICINE

*(continued from p. 203)*

### DIAGNOSIS:

*Horner's syndrome as a result of a Pancoast tumor.* The superior pulmonary sulcus tumor was first described by Pancoast<sup>1</sup> in 1932 as characterized by Horner's syndrome, pain, and bony destruction. These tumors are non-small-cell carcinomas that progress to involve the surrounding bony, vascular, and neural structures at the apex of the lung. They often extend into the thoracic inlet, leading to shoulder or arm pain because of impingement on the C8 and T1 nerve roots.<sup>2</sup> As these tumors invade the cervical sympathetic plexus adjacent to the trachea, they also produce a group of findings classically known as Horner's syndrome, which consists of ptosis, miosis, and anhidrosis on the same side as the lesion.<sup>3</sup>

This patient displayed all of these classic findings: a non-small-cell pulmonary sulcus tumor and the clinical triad of Horner's syndrome. She had observed left eyelid droop, and her primary physician had commented on her left fixed pupil soon after her original diagnosis. The anhidrosis was made prominent by her distress. On this visit, she was admitted for pain control, discharged to outpatient hospice, and died soon thereafter.

### REFERENCES

1. Pancoast HK. Superior pulmonary sulcus tumor. *JAMA*. 1932;99:1391-1396.
2. Johnson DH, Blot WJ, Carbone DP. Cancer of the lung: non-small cell lung cancer and small cell lung cancer. In: Abeloff MD, Armitage JO, Niederhuber JE, et al., eds. *Abeloff's Clinical Oncology*. 4th ed. Philadelphia, PA: Churchill Livingstone; 2008.
3. Arcasoy SM, Jett JR. Superior pulmonary sulcus tumors and Pancoast's syndrome. *N Engl J Med*. 1997;337:1370-1376.