MARC WILLIAMS, MD, EDITOR

OMAR A. MINAI, MD
Department of Pulmonary and Critical Care Medicine, Cleveland Clinic

ATUL C. MEHTA, MD
Department of Pulmonary and Critical Care Medicine, Cleveland Clinic

The Clinical Picture

A lung-transplant recipient with infiltrates

Q: A 56-YEAR-OLD MAN was admitted with fever, hypotension, bilateral infiltrates, and hypoxemia requiring mechanical ventilation. Six years previously he received a left single lung transplant for end-stage chronic obstructive pulmonary disease, and he was receiving immunosuppression with FK 506, methotrexate, and prednisone. He also had a history of chronic renal insufficiency, bronchiolitis obliterans, and candidal esophagitis (for which he was taking fluconazole).

The patient initially improved with treatment with broad-spectrum antibiotics and amphotericin B, given empirically. However, his condition subsequently worsened and he died. An autopsy revealed multiple, angiocentric, well-circumscribed, irregular, firm, 4-to-5-cm lesions with central necrosis in the upper lobe of the left lung, and the tracheal lesions shown in FIGURE 1.

What is the most likely causative organism?

- ❑ *Candida albicans*
- ❑ *Pneumocystis carinii*
- ❑ *Aspergillus fumigatus*
- ❑ *Mycobacterium tuberculosis*
- ❑ *Haemophilus influenzae*

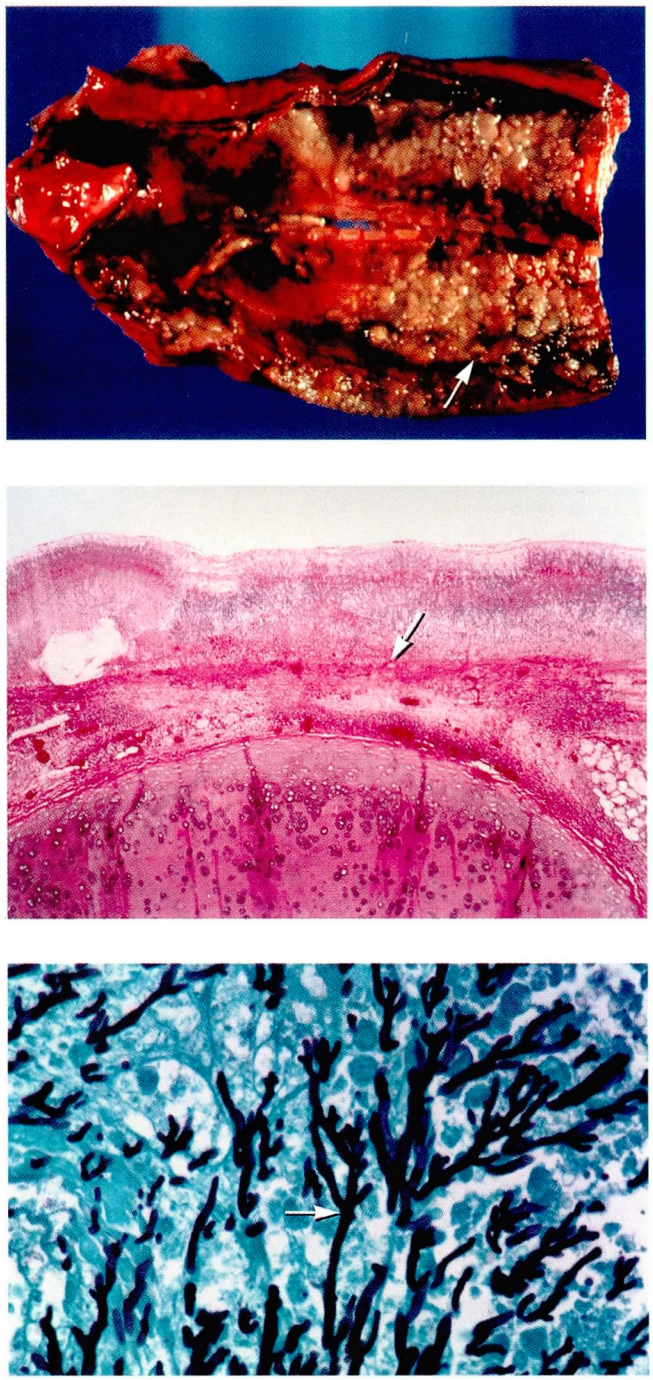

FIGURE 1. Top, gross specimen of the trachea, split in midline anteriorly. **Middle,** cross-section of the tracheal mucosa, hematoxylin and eosin stain. **Bottom,** Grocott-Gomori methenamine-silver nitrate stain.

A: Immunosuppressed patients are vulnerable to a variety of opportunistic infections. Infection with *Aspergillus fumigatus* is particularly lethal, although the mortality rate may be less if the infection is diagnosed earlier.

In the gross specimen (**FIGURE 1**), note the multiple whitish-tan, confluent, flat plaques (arrow) coating the tracheal mucosa. In the hematoxylin and eosin stain, a thick coat of blue-gray fungal hyphae can be seen (arrow) lying atop the tracheal cartilage. The Grocott-Gomori methenamine-silver nitrate (GMS) stain demonstrates septated hyphae (arrow) branching at an acute angle, with tissue invasion.

Cultures of lung tissue grew out *Aspergillus fumigatus*, consistent with invasive bronchopulmonary aspergillosis.

ADDRESS: *Omar Minai, MD, Department of Pulmonary and Critical Care Medicine, A90, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195.*

We Welcome Your Letters

WE ENCOURAGE YOU TO WRITE, either to respond to an article published in the *Journal* or to address a clinical issue of importance to you. You may submit letters by mail, fax, or e-mail.

MAILING ADDRESS
Letters to the Editor
Cleveland Clinic Journal of Medicine
9500 Euclid Ave., NA32
Cleveland, OH 44195
FAX 216.444.9385
E-MAIL ccjm@ccf.org

■ Please be sure to include your full address, phone number, fax number, and e-mail address. Please write concisely, as space is limited. Letters may be edited for style and length. We cannot return materials sent. Submission of a letter constitutes permission for the *Cleveland Clinic Journal of Medicine* to publish it in various editions and forms.