A 43-year-old man with acute myelogenous leukemia (M4) received peripheral blood stem cell transplantation in April 2010. He had fever and chills for one week. Posteroanterior radiography of the chest showed a 2.0 cm patch nodule in the right upper lobe. A computed tomography-guided biopsy was performed. Histopathology showed numerous neutrophils admixed with necrotic debris in the alveolar spaces (Fig. 1A). A Gomori methenamine silver stain demonstrated numerous blackish filamentous bacteria.
filamentous bacteria diagnostic of nocardiosis (Fig. 1B). The no- 
cardia belong to aerobic actinomyces, and contain 9 species. In 
humans, nocardia asteroides accounts for 86% of infections caused 
by this organism. They are important parts of normal soil microflora 
全世界 and cause a variety of diseases in both healthy and 
immunocompromised humans. Inhalation of airborne fragments or 
spores is the usual route of lung infection. Nocardiosis is both 
a primary and an opportunistic infection process with compro-
mised hosts, and there is extensive organ involvement, including 
the lungs, skin, central nervous system, kidneys, liver, and heart. 
The mortality is high (overall 50%, brain abscess 78%, lung <10%) 
and the causes of death include sepsis, brain abscess, and over-
whelming pneumonia.

Further reading

biological characteristics of infections caused by various Nocardia species in 
2011 Apr 3 [Epub ahead of print].
Nocardia pseudobrasiliensis as an emerging cause of opportunistic infection 
after allogeneic hematopoietic stem cell transplantation. J Clin Microbiol 2010; 