Multiloculated Hepatosplenic Abscesses

To The Editor—We note with interest the cases described by Apisarnthanarak et al. [1] detailing the radiological appearance of hepatic and splenic abscesses due to *Burkholderia pseudomallei*. We would like to report 2 differential diagnoses of multiloculated hepatosplenic abscesses; tuberculosis and liver abscess due to *Klebsiella* species.

A 46-year-old woman presented with a 2-month history of fever following recent prolonged residency in China and India. Physical examination was unremarkable, except for the fever, and investigations revealed the presence of a single abscess in the liver and a multiloculated abscess in the spleen (figure 1). Aspirates of the liver abscess were obtained; Gram staining did not demonstrate organisms, and results of bacterial cultures were negative, but subsequent results of culture for acid-fast bacilli were positive for *Mycobacterium tu-

cerculosis*. The patient was treated successfully with standard antituberculous therapy.

A 48-year-old diabetic man presented with a 2-week history of fever. He had not traveled to any areas where melioidosis is considered to be endemic. Physical examination revealed fever and tender hepatomegaly, and imaging demonstrated a multiloculated liver abscess (figure 2). Blood cultures grew *Klebsiella pneumoniae*; aspiration of the abscess was attempted but was unsuccessful. The patient was successfully treated with intravenous ceftriaxone.

Focal hepatosplenic abscesses are an unusual manifestation of tuberculosis [2], but tuberculosis of other organs is an important differential diagnosis of melioidosis in countries where it is endemic. *Klebsiella* species are increasingly recognized pathogens implicated in liver abscesses, especially in some countries where melioidosis is endemic, such as Taiwan and Thailand [3, 4]. It is important to confirm the diagnosis of melioidosis with culture of blood or aspirates, because the therapy of other potential causes of multiloculated abscesses may be significantly different.

Acknowledgments

Potential conflicts of interest. A.C.C. and D.F.J.: no conflicts.

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Is a Honeycomb Appearance on Computer Tomography Characteristic for Burkholderia pseudomallei Liver Abscess?

To the Editor—I read with interest the case reports by Apisarnthanarak et al. [1] in a recent issue of Clinical Infectious Diseases. The authors reported on the CT features of 3 patients with Burkholderia pseudomallei liver abscess and suggested that the “honeycomb” appearance was characteristic and that such features should prompt physicians to consider B. pseudomallei infection, particularly in patients from high-risk areas where B. pseudomallei is endemic. These findings may be useful in aiding early diagnosis. However, one wonders whether the honeycomb appearance described is actually just a part of a spectrum of liver abscess evolution from the initial solid to the later liquefied stages, regardless of the underlying organisms.

B. pseudomallei infection is common in certain tropical regions, particularly in Thailand and northern Australia [2], but the infection is being reported in many countries where it is not usually found. A recent review of 49 cases of liver abscess in my local region showed that B. pseudomallei accounted for 21.3% of cases, with infection due to Klebsiella species accounting for almost 50% [3]. There were no differences in age, number of abscesses, and chest radiography and CT scan findings of liver abscess between patients with the different etiologies. Both Klebsiella and B. pseudomallei abscesses (90% and 93.3%, respectively) were significantly associated with the presence of poorly controlled diabetes mellitus that was either previously known or newly diagnosed. All of our patients had B. pseudomallei isolated by blood or pus culture within a few days of initiating the culture. However, species identification required at least another 48 h. The sensitivity patterns are quite distinctive, with a universal intrinsic resistance to aminoglycoside.

Although the report by Apisarnthanarak et al. [1] showed possible characteristic features, these findings were based on only 3 patients. There are other clinical and initial laboratory findings that have been reported regarding the characteristics of B. pseudomallei liver abscess [4]. In my local region, we always consider B. pseudomallei as a possible etiology in all cases of liver abscess, particularly in patients with diabetes (previously known or newly diagnosed) or any other underlying immunocompromising conditions, such as malignancies and post-chemotherapy. The standard antibiotic regimen for sepsis at my institution consists of amoxicillin and clavulanic acid (with or without metronidazole), which provides coverage for infections caused by both B. pseudomallei and Klebsiella species. Third-generation cephalosporin is added if there is a high suspicion for B. pseudomallei infection. The presence of a honeycomb appearance on a CT scan may be helpful, but the absence of such findings should not detract the possibility of B. pseudomallei infection. Whether this CT finding is characteristic for B. pseudomallei liver abscess needs further evaluation using a larger sample size.

Potential conflict of interest. V.H.C.: no conflicts.

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