

A Case of Melioidosis Presenting as Activation of Latent Infection

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Melioidosis is an infection caused by the facultative intracellular gram-negative bacterium, *Burkholderia pseudomallei*. It is endemic in Southeast Asia, Northern Australia and China, where *Burkholderia pseudomallei* is a widely distributed environmental saprophyte in soil and fresh surfaced water. The incubation period following inoculating injury ranges from 1 to 21 days. It presents as a febrile illness, ranging from an acute fulminant septicemia to a chronic debilitating localized infection. Infection with *Burkholderia pseudomallei* can be latent and subsequently activate, but this type of infection is rare. We report a case of activation of latent focus of *Burkholderia pseudomallei* infection, presenting as acute pyelonephritis 15 months after coming back from Vietnam and Cambodia. A 76-year-old man with lung cancer who received chemotherapy was hospitalized for fever. The computed tomography showed right acute pyelonephritis. *Burkholderia pseudomallei* was identified from the urine culture and DNA sequencing of 16S ribosomal RNA with 100% homology. The bacterium was sensitive to imipenem and tetracyclin but resistant to ceftazidime and trimethoprim/sulfamethoxazole on antimicrobial susceptibility test. The patient was treated with carbapenem and improved clinical feature. This is the first report of melioidosis presenting as activation of latent infection in Korea.

Budding yeast cells in peripheral blood smear: clue to candidemia

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Rapid diagnosis and early appropriate antifungal treatment significantly impact a prognosis of candidemia, especially in immunocompromised patients. Here, we report a case of *Candida glabrata* candidemia which successfully treated based on early suspicion from budding yeast cells in peripheral blood smear. A 46-year-old female patient with acute myeloid leukemia was admitted for the management of grade III acute graft-versus-host disease (GVHD) of gut, liver, and skin, 74 days after successful haploidentical hematopoietic stem cell transplantation. Posaconazole was administered for the antifungal prophylaxis. However, the patient had difficulties in swallowing and oral candidiasis was developed. Posaconazole was changed into intravenous fluconazole. On day 19 of fluconazole treatment, extracellular and intracellular budding yeast cells, phagocytosed by monocytes, were fortuitously identified on blood smear (figure). Fluconazole was changed into caspofungin for the treatment of breakthrough yeast infection. Fever developed and subsequent blood culture revealed *Candida glabrata*. Repeated blood cultures were negative after 2 days from starting caspofungin, and the patient finally recovered from candidemia and acute GVHD. Intracytoplasmic phagocytosed yeast cells and budding yeast can be indicative of candidemia. Blood smear, as well as blood culture, should be carefully examined. Yeast cells from blood smear could be a clue to early recognition of breakthrough candidemia that can lead to a successful outcome of patients.

