Chapter 8. Penicilliosis

Fig. 8.1. Umbilicated skin lesions of on the face, a site of disseminated penicilliosis in a man with HIV infection. Source: Contributed by Eric L. Krakauer, M.D., Ph.D., originally published by the Partners in Infectious Disease Images at www.idimages.org, and used with permission from Rajesh T. Gandhi, M.D., Editor.

Fig. 8.2. (Color Plate 1) Endemic areas in SE Asia for penicilliosis. Known endemic areas are colored in light red. Those areas shown in reticulated pattern are presumed to harbor *P. marneffei*. The Thailand endemic area is centered on the northern city of Chiang Mai. Case series were reported in Hong Kong. Case reports from China include Guangxi and Guangdong provinces. Areas S of the Yangtse river are presumed to harbor *P. marneffei*. Other SE Asian countries reporting cases include Vietnam, Laos, Taiwan, and parts of Malaysia. The Manipur state in NE India also has reported cases. Indonesia and Cambodia are suspected of harboring the fungus but the lack of case reports indicates either the rarity of autochthonous cases or lack of surveillance for the pathogen.

Fig 8.3. The fission yeast morphology of *Penicillium marneffei*. Panel a. Intracellular yeast within a macrophage. Source: Kenrad Nelson M.D., Johns Hopkins University School of Public Health, Baltimore, M.D, previously published in Dismukes et al., 2003, and used with permission from Oxford University Press. Panel b. Fission yeast of *P.marneffei* as seen in histopathologic section, GMS stain. Arrows point to fission yeast division. Yeast cells are ovoid or elongate (3-8 µm length). Used with permission from Benjaporn Chaiwun, M.D., Department of Pathology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand.

Fig. 8.4. a. (Color Plate 2) *Penicillium marneffei* colony (mold form) L: surface, R: Reverse showing diffusible red pigment. Source: Mr. Jim Gathany, Creative Arts Branch, CDC.

Fig. 8.4b. Microscopic morphology of the mold form of *P. marneffei*. The brush-shaped conidiophore is typical of *Penicillium* species. Conidiophores are biverticillate (consisting of a row of metulae and a row of phialides). Penicilli are either asymmetric or symmetric, seldom branched. Conidia arise from pointed phialides. Conidial chains are short, often tangled. Conidia are smooth, ellipsoid (2.5-4 x 2-3 µm) (500 x). Used with permission from Dr. Arvind A. Padhye, CDC.