Talaromyces marneffei (Previously known as Penicillium marneffei)

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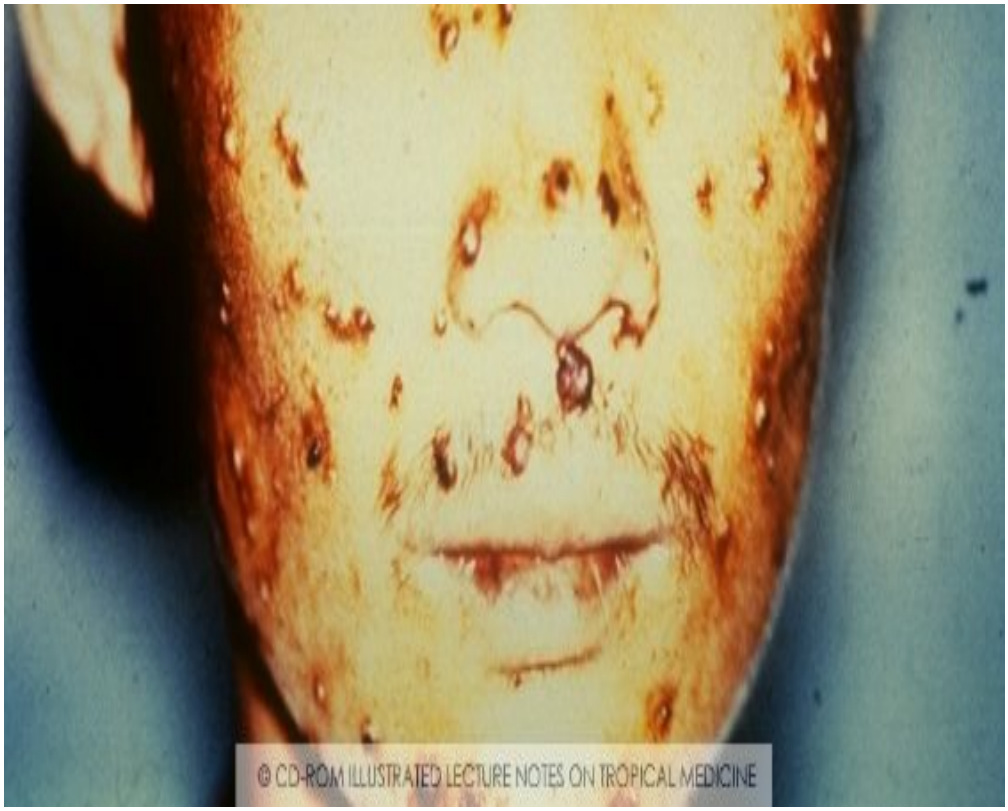
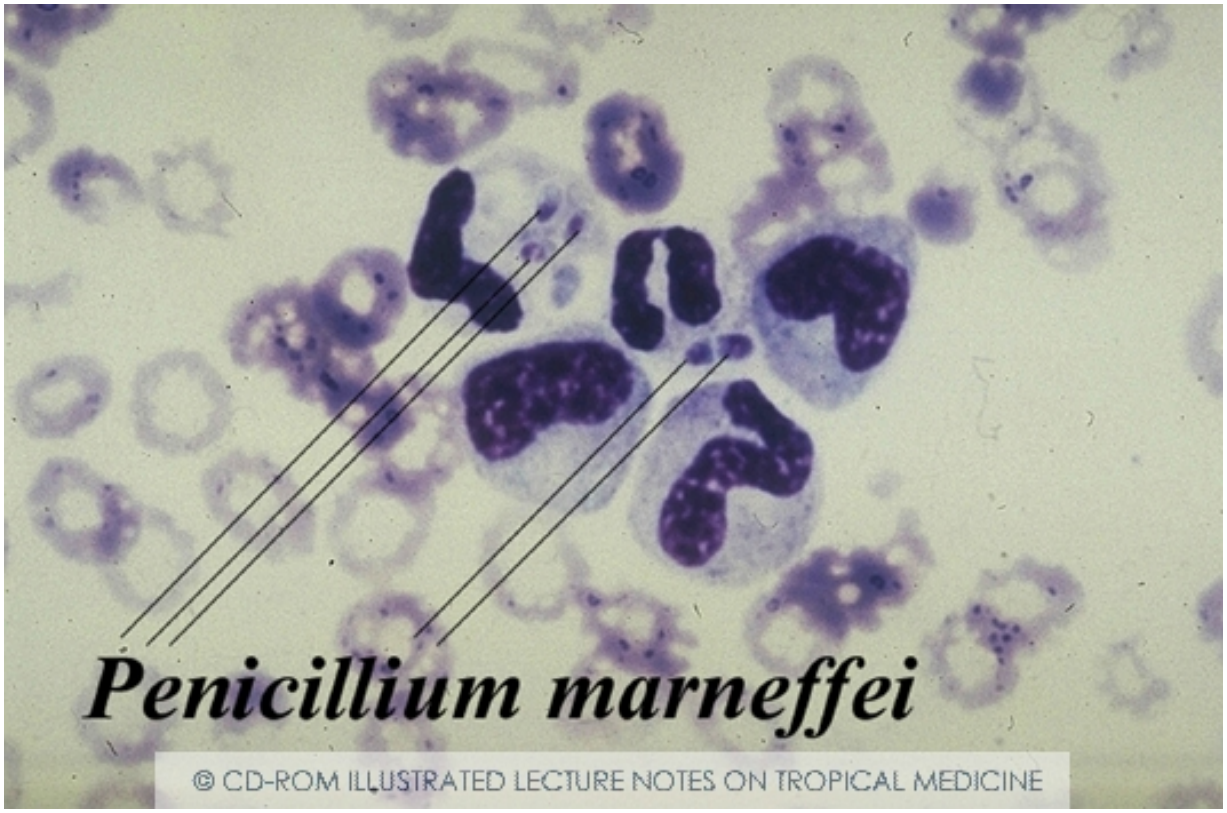
This mycosis only occurs in Southeast Asia and is usually associated with suppression of cellular immunity. The pathogen *T. marneffei* was first isolated from bamboo rats in Vietnam and has since been found in patients with a disseminated often fatal mycosis. The disease is an AIDS indicator.

Causative agent

Talaromyces marneffei is a dimorphic mould. When it was classified as a *Penicillium* species it was regarded as the only species that can cause invasive disease, in contrast to other *Penicillium* species which are normally understood to be unimportant in human disease. In the saprophytic phase it produces a red pigment that diffuses in agar. In the parasitic phase, intrahistiocytic and intramacrophagic elements are found which divide by fission and not by bud formation.



Infection with *Talaromyces marneffei* in an AIDS patient. Remark the typical umbilicated papular skin lesions



Microscopy of thin bloodsmear of an AIDS patient from Southeast Asia. *Talaromyces marneffei.* Copyright ITM

Clinical aspects

The portal of entry is the lung and the infection spreads rapidly or otherwise via the RES. In AIDS patients, fever, marked weight loss, hepatosplenomegaly and often also cutaneous lesions are seen.

DD with cryptococcosis, histoplasmosis. This infection is now increasingly recognized as a disease in sold organ transplant recipients who travel.

Diagnosis

The diagnosis of this mycosis is based on direct examination of sputum, BAL, bone marrow and material from skin lesions or on histological examination where the intrahistiocytic elements can be observed. *T. marneffei* can be cultured but the manipulation should be performed in a level 2 laboratory.

Reliable serological tests are being developed.

Treatment

In severe disease treatment with amphotericin B IV or voriconazole IV should be started, followed by itraconazole or voriconazole po. Secondary prophylaxis with itra- or voriconazole is suggested when the CD4-count is below 100 cells/mm³ in HIV-patients on HAART.

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