A clinical analysis of nosocomial fungal infection

In a hospital for 4 years

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Objective: To investigate the nosocomial fungal infection in a hospital. The pathogens, the infection routes, the high-risk factors, the drug-resistance of nosocomial fungal infection and its relationship with the use of antibiotics in a hospital from Jan. 2005 to Dec. 2008.

Methods: The clinical data of patients with microbiologically documented nosocomial fungal infection were retrospectively analyzed. Pathogens were identified by fungal biochemical identification panel, antimicrobial susceptibility tests were done by disc agar diffusion test.

Results: The mean incidence rate of nosocomial fungal infections in a hospital from 2005 to 2008 was 8.04%. Most lower respiratory tract infection, accounting for 54.5%, followed by urinary tract and skin infection. Among high-risk factors, antibiotics use accounts for 42%, followed by chemotherapy. The main pathogen was Candida albicans, which is the most common isolated. Of note, the infection rate of Candida krusei has been on the rise in recent years.

Conclusions: Lower respiratory tract was the most frequent infection site. The main pathogens of nosocomial fungal infection were Candida albicans (93.7%). The management including rational use of antibiotics, microbiological culture and susceptibility test should be strengthened to reduce the nosocomial fungal infection.

Intramuscular Epicoccum nigrum infection in an immunocompromised patient: A case report

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Introduction: Epicoccum nigrum is a saprophytic mould with a worldwide distribution. It is common on senescent and dead plant and soil. It is occasionally isolated as a contaminant from clinical specimens. Here we described the first reported case of intramuscular infection due to Epicoccum nigrum in an immunocompromised adult patient.

Case description: A 36-year-old Malay male, newly diagnosed Chronic Lymphocytic Leukemia admitted for prolonged fever, promptly treated as pneumonia with imipenem. The patient was febrile, stable vital signs and noted to have swollen, pain and erythematous arm. Ultrasound revealed hypoechoic lesion suggestive of intramuscular abscess, but no evidence of bone involvement. He was then treated as left arm cellulitis, with intravenous cloxacillin.

As the patient did not respond to antibiotics, the possibility of disseminated fungal infection was thought. Voriconazole and Amphotericin B was started empirically. A minor drainage operation was performed, pus and tissue biopsy were send for microbiological and histopathology examination. No growth were detected from pus culture. Histopathology examination showed non specific inflammation and tissue biopsy grew dermatophytes on day 9 of fungal culture. Patient was still febrile although on combination of amphotericin B and voriconazole. Dose adjustment was made and Caspofungin was added to the list of combination. Later the mould was identified as Epicoccum nigrum. Amphotericin and caspofungin were discontinued. Voriconazole was continued, planned for up to 8 weeks.