Serious fungal diseases - a brief Brazilian view

Vitorino M. Santos*

Internal Medicine Department, Armed Forces Hospital and Catholic University, Brasília-DF, Brazil

Commentary

I read with special interest the epidemiological study performed by Klimko et al. with focus on local and invasive fungal infections [IFI] in Russian Federation [1]. Comments are herein done about the Russian recent article, in addition to three previous Brazilian reports of patients with aspergillosis, cryptococcosis, and mucormycosis [1-4]. Approximately 300 fungal species may cause human disease, and the most common have become significant causes of death, at least in part because they have been often neglected. Actually, the growing number of IFI with increased morbidity and mortality in medium and low income countries are due to underestimation by non-specialist health workers. Moreover, there is a relative lack of large population-based epidemiological studies [1]. Aspergillosis may affect up to 88% of people with hematological diseases [1], and begins as pulmonary invasion with further hematogenous systemic dissemination [2]. The majority of cases are related to hematological malignancies or organ transplants; and major risk factors are leucopenia, chemotherapy, and corticosteroid therapy [1,2]. Voriconazole and liposomal amphotericin B have been good options for treatment [2]. Cryptococcus is the most common fatal fungal infection in the whole world; the major clinical manifestation is meningitis, and HIV infection remains the main risk factor [3]. Fluconosine is a better option than fluconazole plus amphotericin B deoxycholate for induction treatment, but moderate pulmonary infections respond well to fluconazole [3]. Mucormycosis is the second most frequent cause of IFI, even in immunocompetent individuals, and is the main predisposing condition are hematological malignancies, chemotherapy, corticosteroids, diabetes mellitus, trauma, and autoimmune disorders [4]. Disseminated infections usually origin from pulmonary involvement, and treatment options are liposomal amphotericin B, caspofungin, posaconazole, and deferasirox [4]. Unquestionably, the Russian study is useful to general practitioners and citizens, and the outcomes were good after administration of voriconazole [2], and by liposomal amphotericin B plus deferasirox and hyperbaric oxygen [4], respectively. Worthy of note, the unique unfavorable event was due to a widespread mycobacteriosis in a HIV patient with limited cryptococcal prostate infection disclosed in necropsy [3]. As a whole, the commented studies may contribute to enhance the awareness about currently neglected IFI, which are frequently associated with ominous outcome due to late diagnosis. They also should increase the suspicion index of non-specialist primary health workers.

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Conflicts of interest

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References

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Correspondence to: Prof. Dr. Vitorino Modesto dos Santos, Hospital das Forças Armadas, Estrada do contorno do bosque s/n, Cruzeiro Novo, 70.658-900, Brasília-DF, Brazil, Tel: 0055 61-39662103, Fax: 0055 61-32331599, E-mail: vitorinomodesto@gmail.com

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