Editorial

Histoplasmosis in Bangladesh

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Histoplasmosis is a systemic fungal infection caused by dimorphic fungus *Histoplasma capsulatum*. Its mycelial form is found in soil rich in bat and bird excreta. Air borne conidia enters in to the human lungs by inhalation, where they may germinate in to yeast form. Host response to infection depends on dose of infective inoculum, host immune status and comorbidity. Infections may pass unnoticed or only mild respiratory symptoms may occur in immunocompetent individuals but dissemination may occur in immunodeficient patients. Reactivation of latent infections may complicate recipients of solid organ transplant or patients receiving immunosuppressive agents for any other indication.

Histoplasma capsulatum was first described by Samuel T. Darling in Panama in 1905.[1] It is endemic in Americas, specially, along the Mississippi and Ohio river valleys, parts of South America, Africa and South-East Asia. Globally, half a million infections occur annually, with 100,000 disseminated cases having 30 – 50% mortality. In Asian countries, nearly 1700 cases are reported with highest contributions from India and China followed by Thailand, Malaysia and Indonesia.[2-5]

In Bangladesh, around 20% population had a positive skin reaction to histoplasmin in two surveys but cases were not detected until 1982, when the first case was reported. Second reported case was having disseminated histoplasmosis and he tested positive for human immunodeficient virus (HIV) infection. In recent years, a good number of cases are reported; around 40 cases of histoplasmosis are reported in/or from Bangladesh. Male patients were predominant, having diabetes mellitus, being transplant recipient and having HIV infection or acquired immunodeficiency syndrome (AIDS), as risk factors. Clinical manifestations were fever, cough, weight loss, oropharyngeal ulcers, lymph adenopathy, hepatosplenomegaly, adrenal enlargements and shock.[6] Diagnosis was based on cultures of blood and bone marrow, typical histopathological findings from representative tissue samples and serology. Disseminated forms were the majority of cases. Treatment included amphotericin B, conventional or liposomal, followed by itraconazole and in localized cases only itraconazole. Outcome in cases with treatment was comparable to world literature.

Histoplasmosis is a neglected tropical disease according to the Center for Disease Control (CDC), USA and World Health Organization (WHO) lists. It is a neglected disease in our country from physician's perspective, histoplasmosis is not considered as a differential in first instances (nine out of 26 cases were treated with anti-tuberculosis therapy initially).[6] It is a neglected disease from logistic aspects; histoplasma antigen test is not readily available in Bangladesh and the cost of liposomal amphotericin B is very high. From epidemiological perspective, histoplasmosis is definitely an emerging disease in Bangladesh. In a country with 170 million population, remarkable portion of positive skin reaction and autochthonous cases, only 40 cases of histoplasmosis is reported in literature. It may be that, many cases are asymptomatic, minimally symptomatic, undiagnosed, mis-diagnosed or under-reported, as histoplasmosis is not a notifiable or reportable condition according to government policy. Physicians should be aware of histoplasmosis and it should be considered as a differential diagnosis in patients with appropriate scenarios. It should be a differential in patients receiving empiric anti-tuberculosis treatment, specially, if not responding satisfactorily.

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