Clinical Characteristics of Histoplasmosis in Thai Patients

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Background: Histoplasmosis is a rare infectious disease caused by a dimorphic fungus, *Histoplasmosis capsulatum*, which can infect both immunocompetent and immunocompromise individuals, especially those with HIV infection. Thailand is not an endemic area of histoplasmosis, and cases were sporadic which were mostly related to HIV infection. However, clinical characteristics and treatment outcomes of histoplasmosis in Thai patients have not been well described. This study aimed to investigate the clinical characteristics and outcomes of Thai patients with histoplasmosis.

Methods: We conducted a retrospective study of adult patients with histoplasmosis who were hospitalized at Siriraj Hospital during 2002 to 2012 (11 years). Clinical characteristics including baseline characteristic and microbiological data as well as treatment outcomes were analyzed.

Results: Among 57 patients of histoplasmosis, 37(64.9%) were male and mean age was 37.8 years. The majority of patients lived in central Thailand (69.6%) and 52 out of 57 (91.2%) had comorbid diseases, in which HIV infection was the most common (75.4%), followed by autoimmune diseases and idiopathic CD4 T-lymphocyte deficiency. Mean CD4 count among HIV-infected patients was 40 (1-320) cells/mm³. The most common clinical syndrome of histoplasmosis was progressive disseminated histoplasmosis (39/57, 70%), followed by cutaneous histoplasmosis (4/57, 7%), and fungal synovitis (2/57, 4%). Organ involvement included lungs (20/57, 38%), oral cavity (2/57, 4%), adrenal gland (1/57, 2%) and endocarditis (1/57, 2%). Eighty-four percent of patients had fever, 88% had weight loss, 63% had anaemia, 16% had jaundice, 38% had hepatomegaly, 18% had splenomegaly, 41% had lymphadenopathy and 30% had molluskum-like skin lesions. Chest radiography was abnormal in 55% and 65% of which had bilateral pulmonary lesions. Interstitial infiltration was found in 23%, perihilar adenopathy 11% and cavitary lesion 9%. Microscopic examination was positive for yeast-like organism compatible with *Histoplasma* in bone marrow for 41%, skin 29%, bronchoalveolar lavage 4%, oral lesion 4%, synovium tissue 4%, adrenal gland 2% and gingival biopsy 2%. Fungal cultures were positive from bone marrow for 13%, skin 5%, blood 5%, pleural fluid 4%, sputum 2%, adrenal gland 2% and vegetation 2%. Eighty-six patients received treatment with amphotericin B deoxycholate followed by itraconazole and clinical cure was achieved in 86% in those received antifungal treatment. Survival rates at 6 and 12 month were 88% and 75%, respectively.

Conclusions: Progressive disseminated histoplasmosis is the most common syndrome of histoplasmosis in Thai patients and bone marrow study is the most valuable investigation for diagnosis in suspected cases. Effective treatment includes amphotericin B followed by oral itraconazole.