

FUNGAL RHINOSINUSITIS: A RETROSPECTIVE ANALYSIS OF CLINICOPATHOLOGIC FEATURES AND TREATMENT OUTCOMES AT RAMATHIBODI HOSPITAL

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Abstract. The objective of this study was to determine the clinicopathologic findings of invasive and non-invasive fungal rhinosinusitis and to compare the features of the two diseases. The medical records of patients with invasive and non-invasive fungal rhinosinusitis at Ramathibodi Hospital between July 1999 and June 2009 were analyzed. The criterion for the diagnosis of fungal rhinosinusitis was the evidence of fungal elements from histopathologic section on sinonasal specimens. The age, gender, clinical manifestations, duration of symptoms, associated diseases, laboratory data, results of mycotic culture and treatment outcomes were analyzed. The relationship between fungal rhinosinusitis and patient characteristics as well as clinical presentations were assessed. The fungus-attributable mortality rate was determined. The study included 43 cases of invasive fungal rhinosinusitis and 68 cases of non-invasive fungal rhinosinusitis. There were 44 male, and 67 female patients. The mean age at diagnosis was 54.6 years (range: 5 to 86 years). A total of 70 (63.1%) were attributed to aspergillosis, 8 (7.2%) to candidiasis, 6 (5.4%) to zygomycosis, 4 (3.6%) to phaeohyphomycosis, 1 (0.9%) to pseudallescheriasis, 1 (0.9%) to entomophthoromycosis and 21 (18.9%) to non-specific fungi. Cultures from sinonasal tissues were positive for fungus in 37 of 87 cases (42.5%). The clinical presentations of fungal rhinosinusitis included nasal stuffiness (27.9%), nasal discharge (27.9%), facial pain (27.9%), fever (24.3%) and headache (19.8%). One-fifth of cases had an underlying hematologic malignancy. Invasive fungal rhinosinusitis was significantly associated with hematologic malignancy and neutropenia. Fungus-attributable mortality rate was 44.2% in invasive fungal rhinosinusitis. Early antifungal therapy and surgical drainage were associated with a survival advantage.

Key words: fungal rhinosinusitis, invasive, non-invasive, clinicopathologic findings

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