

中文題目：成人血液惡性疾病患者分枝桿菌的感染

英文題目：Mycobacterial Infections in adult patients with hematological malignancy

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Background: The epidemiology, clinical manifestations and outcome of mycobacterial infection (tuberculosis and non-tuberculous mycobacterium, NTM) in patients with hematological malignancy were still unknown.

Materials and Methods: We retrospectively reviewed and analyzed the clinical and microbiological characteristics of adult patients with hematological malignancy and mycobacterial infections between 2001 and 2010 in the National Taiwan University Hospital.

Result: Among a total of 2,846 patients with hematological malignancy, 34 (1.2%) patients had NTM infections. *Mycobacterium avium-intracellulare* complex (13 patients, 38%) was the most commonly isolated species, followed by *M. abscessus* (21%), *M. fortuitum* (18%), and *M. kansasii* (18%). Twenty-six patients had pulmonary NTM infection and eight patients had disseminated disease. During the study period, 50 patients with hematological malignancy and tuberculosis (TB) were also evaluated.

Neutropenia was more frequently encountered among patients with disseminated NTM disease ($p=0.007$) at diagnosis than among patients with pulmonary disease only. Twenty-five (74%) patients received adequate initial antibiotic treatment for NTM treatment. Five of the 34 NTM patients died within 30 days after diagnosis. Cox regression multivariate analysis showed that chronic kidney disease ($p=0.017$) and neutropenia at diagnosis ($p=0.032$) were independent prognostic factors of NTM infection in patients with hematological malignancy. Clinically, patients with NTM infection had higher absolute neutrophil counts at diagnosis ($p=0.003$) and a higher 30-day mortality rate (15% vs. 2%, $p=0.025$) than TB patients.

Conclusion: Taiwan is an endemic area of mycobacterial infection. TB and NTM infection in patients with hematological malignancy are not uncommon. Hematological patients with chronic kidney disease and febrile neutropenia who developed NTM infection had significant worse prognosis than patients with TB infection. Clinician might take mycobacterial infection into differential diagnosis in patients with hematological malignancy.