Risk Factors of Invasive Aspergillosis in Systemic Lupus Erythematosus Patients in Srinagarind Hospital, Khon Kaen University

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Background: Invasive aspergillosis (IA) has been reported in systemic lupus erythematosus (SLE) patients, but risk factor of IA has not been investigated.

Objective: To identify risk factors of invasive aspergillosis in SLE patients.

Methods: A retrospective age and sex matched case-control study in adult SLE patients from January 1st 2002- December 31st 2017 at Srinagarind Hospital, Khon Kaen University, Khon Kaen, Thailand, has been conducted. We excluded patients who overlapped with other immunocompromised conditions. Data from patients and controls were compared using the Chi-squared test and Fisher’s exact test for categorical data, and the Wilcoxon rank-sum (Mann-Whitney U) test for quantitative data. Univariate and multivariate analysis was performed using logistic regression model.

Results: Of 1585 patients with SLE, invasive aspergillosis was found in 22 patients (1.38%). Median age was 36.5 (25-43.5) years and 76 (86.4%) patients were female. There were 3 clinical risk factors including: 1) absolute lymphocyte count (adjusted OR 0.99, \(P=0.044\)), 2) creatinine (adjusted OR 2.36, \(P=0.049\)), 3) steroid use (adjusted OR 21.43, \(P=0.006\)), significantly with statistical association to invasive aspergillosis in SLE patients.

Conclusion: Renal failure and steroid use are significant clinical risk factors for invasive aspergillosis in SLE patients.

Keywords: SLE, Invasive aspergillosis, Risk factor