Abstract of Master's Thesis

No.1

Course	Master of Sciences (MSc)	Name	Keita Banno	
Thesis	Dengue Hemophagocytic Syndrome: A Systematic Review and Meta-Analysis on Epidemiology,			
Title Clinical Signs, Outcomes, and Risk Factors.				

Abstract of Master's Thesis

Objective:

To provide a quantitative synthesis of specific characteristics and indicators of dengue-associated hemophagocytic syndrome patients for proper diagnosis and early treatment.

Method:

We systematically searched through eleven electronic databases and also did manual searching based on reference lists to identify relevant articles published till May, 2017. More than two researchers independently contributed every phases such as screening, selecting eligible articles, data extraction from included articles, and also meta-analysis. We extracted and pooled clinical and laboratory parameters and case-fatality rate from the eligible studies using fixed and random-effects models. This study followed the PRISMA guidelines.

Result:

We finally identified 122 dengue-associated hemophagocytic syndrome patients from 45 eligible articles in this systematic review and meta-analysis study. Approximately, half of the cases were reported in South-East Asia region (50.8%), especially in India (36.9%), followed by Puerto Rico (18.9%) in region of the Americas, and followed by Malaysia (11.5%) in Western Pacific region all over the world. Half of identified patients was children (52.5%) and half of them was male (50.1%). The main clinical syndrome was thrombocytopenia (pooled rate 90.1%), followed by histiocytosis, and hypertriglyceridemia. The highest pooled rate among laboratory values was elevated serum ferritin (97.1%) and most of the identified cases were seen hemophagocytosis in their bone marrow (pooled rate 85.6%). The pooled case-fatality rate was 16.7% (95% confidence interval: 10.8-24.9).

^{*} The abstract, containing the objective, method, result and conclusion should not exceed c.1000 words (300-500words/page, double sided on A4 paper)

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No.2

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Conclusion :						
The pooled case-fatality rate of dengue-associated hemophagocytic syndrome patients was 16.7% and it was						
much higher than the case-fatality rate among hospitalized dengue patients. We presumed that elevated serum						
ferritin level might be an important indicator for diagnosis of dengue-associated hemophagocytic syndrome						
patients. In addition, the bone marrow aspiration might be useful test specifically for dengue-associated						
hemophagocytic syndrome patients.						

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