

Lymphocyte - Neutrophil Ratios In The Recent Reported Cases Of Bird Flu Infection In Thailand and Vietnam

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Citation

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Abstract

Dear Editor:

Bird flu or avian flu, caused by H5N1 virus, is a new emerging infectious disease. There has been worldwide situation regarding avian influenza infections in poultry from 1997. It is noted that this H5N1 virus jumped the species barrier and caused severe disease with high mortality in humans in Vietnam and Thailand. Most infected cases usually developed progressive pneumonia with acute respiratory distress syndrome and consequently died. The immunohematological aspect of this viral infection has not been well documented. Here, the author performed this mini-study in order to document the impact of bird flu infection on level of lymphocyte – neutrophil ratio among reported Thai and Vietnamese patients. A literature review on the papers concerning human bird flu in Thailand and Vietnam was performed from database of the published works cited in the Index Medicus and Science Citation Index and also the published works in all 256 local Thai journals, which are not included in the international citation index. The reports that contained no complete data were excluded for further analysis.

According to this review, there were 7 reports [1,2,3,4,5,6,7] covering 22 Thai and Vietnamese patients with a firm diagnosis of bird flu. The reported lymphocyte – neutrophil ratios ranged from 1:11.5 to 1:0.34 with an average value equal to $1:1.52 \pm 1:1.56$ (median = 1:2.2). Of interest, the reported ratios are varied implying the variability in cellular response to the infection. Generally, viral infection usually induced increased lymphocyte – neutrophil ratio. However,

some viral infections such as human immunodeficiency virus (HIV) infection directly attack the lymphocyte and cause decreased lymphocyte – neutrophil ratio. Concerning the average and mean of reported lymphocyte – neutrophil ratios in bird flu cases, the trend of normal to increased ratio can be seen.

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