Clinical Features, Etiology, and Outcomes of Treatment of Autoimmune Hemolytic Anemia in HRH Princess Maha Chakri Sirindhorn Medical Center

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Background: Autoimmune hemolytic anemia (AIHA) is a common condition of benign hematologic disease. Reticulocyte count should be evaluated and etiology can improve outcomes of treatment.

Objective: To determine the characteristics, etiology, reticulocyte count, and response of treatment.

Methods: This study was a retrospective descriptive study. Medical records between 2011 and 2015 of eighty-eight AIHA patients of HRH Princess Maha Chakri Sirindhorn Medical Center were reviewed. Data collections were personal demographics, disease characteristics, laboratory, treatments, and outcome of treatments. The statistical analysis included percentage, mean score, and standard deviation. The chi-square and Fisher’s exact correlation were performed to identify categorical variables and assess between independent variables and outcome. The ANOVA test was used for continuous variables. P-value <0.05 was considered statistically significant.

Results: From 88 patients, the median age was 64.5 years (19-99 years). Male gender was equal to female gender. There were 45 (51.1%), 18 (20.5%), 10 (11.4), 6 (6.8%), 6 (6.8%), and 3 (3.4%) patients with idiopathic, infection, systemic lupus erythematos (SLE), lymphoma, solid tumor, and drug, respectively. Most of the patients (92.1%) were positive of direct coombs test. There were 74 (84.1.5%), 9 (10.2.5%), and 5 (5.7%) patients with warm type, cold type, and mixed type, respectively. The median of reticulocyte count production index (RPI) at diagnosis was 0.65 (SD 0.91; range 0-6.44), and absolute reticulocyte count 72.2 x 109 /L (SD 73.66, range 1.88 x 109/L - 504 x 109/L). There were 39 (44.3%), 25 (28.4%), and 5 (5.7%) patients treated with prednisolone, dexamethasone and methylprednisolone for initial treatment. There were no factors associated with low reticulocyte count in AIHA patients.

Conclusion: The most common cause of AIHA is idiopathic. There is unknown cause of low level of RPI and absolute reticulocyte count in AIHA patients.

Keywords: Autoimmune hemolytic anemia (AIHA), Reticulocyte count, Absolute reticulocyte count, Reticulocyte count production index (RPI), Steroid treatment