Recent Update of the Treatment of Aplastic Anemia in Thailand

Ponlapat Rojnuckarin
Chulalongkorn University, Thailand

Aplastic anemia (AA) is more common in Thailand with the incidence of 4.6 per million per year, compared to approximately 2 per million in Western countries. Certain HLA class II alleles common in Thailand are significantly associated with AA supporting the autoimmune mechanism. Furthermore, previous epidemiological studies revealed the relationship with various agricultural occupations and/or chemical exposures suggesting roles of environmental triggers. Like Western data, most Thai patients are classified as severe AA (SAA) or very severe AA (VSAA) which indicate anti-thymocyte globulin (ATG)-based therapy. Allogeneic stem cell transplantation is rarely performed due to patient ages/performance statuses or lacks of HLA-matched siblings. Transplantation from alternative donors is still not reimbursed. The only available ATG choice is rabbit ATG plus cyclosporin which showed low response rates of 24% in 6 months. However, response rates rise up to over 70% in 2 years for surviving patients. In a large proportion of patients, poor performance status and/or advance age prohibit the use of intensive therapy. A recent study in Thailand (N = 110) revealed a high response rate to oxymetholone of 56.4% (50.7% for SAA/VSAA). Higher baseline reticulocyte counts and androgenic side effects occurring within the first 2 months were predictive for responses to the androgen. In a multivariate analysis, survival of an AA cohort from Thailand (N 257) was not related to severity (SAA/VSAA vs. Non-SAA) but significantly associated with the presence of infection within the first month after diagnosis. This result emphasizes the prognostic importance of clinical infections rather than numbers of blood counts by the current AA severity definitions. Patients who did not suffer from infection despite severe cytopenia could have long survival under transfusion supports. The majority of them finally demonstrated hematological responses to immunosuppression or oxymetholone, and/or thrombopoietin receptor agonists (TPO-RAs) within 1-2 years. AA patients presenting with severe infections and/or major bleeding are still the main clinical challenge. For this group. research for effective treatments with faster responses is warranted.