ABSTRACT

Background: Congenital Heart Disease (CHD) has a high mortality rate of 81 cases per 100,000 live births, leading cause of infant mortality. Previous studies revealed that thrombocytopenia is a significant predictor of increased mortality in CHD patients. It exacerbates cardiovascular complications and serves as an indicator of underlying inflammatory processes that further deteriorate patient outcomes. By identifying and understanding the impact of thrombocytopenia on CHD, this study provides critical insights that could lead to improved management strategies, more effective interventions, and ultimately, a reduction in mortality rates among these vulnerable patients. Therefore, this study aims to evaluate thrombocytopenia as a predictor of inpatient mortality among children with CHD

Objective: To evaluate thrombocytopenia as a predictor of inpatients mortality among children with congenital heart disease at RSUP Dr.Sardjito

Methods: A retrospective cohort study was conducted by analyzing medical records from the Department of Pediatrics at RSUP Dr. Sardjito over a defined period. Thrombocytopenia at the time of hospital admission served as the independent variable, along with other prognostic factors including sex, age at diagnosis, and comorbidities. The dependent variable was inpatient mortality status. The relationship between thrombocytopenia, other predictors, and inpatient mortality was assessed using multivariate logistic regression analysis.

Result: A total of 234 samples were included in this study, all of whom were inpatients diagnosed with congenital heart disease (CHD) and evaluated for thrombocytopenia. The baseline characteristics of these patients, categorized by mortality outcomes (non-survivors, n = 36; survivors, n = 198). Variables included demographic data, CHD type, thrombocytopenia status, medication use, presence of genetic syndromes, socioeconomic status, and complications. Among the variables assessed, age under five years, presence of thrombocytopenia, and clinical complications were significantly associated with higher mortality in children with CHD, underscoring their potential value as prognostic indicators in this patient population.

Conclusion: Age, thrombocytopenia, and the presence of complications were significant predictors of mortality in children with CHD.

Keyword : Thrombocytopenia, mortality, risk factor, congenital heart disease.