Description of intervention/study

Anecdotally, despite the widespread use in various hospital care settings, including cardiac intensive care units (ICUs), KCl is not standard practice. Limited data exist on the prevalence, safety, and optimal use of KCl administration in children with cardiac disease. To address these gaps, our research team designed a retrospective chart review study to evaluate KCl use in pediatric patients admitted to a tertiary care hospital in the United States. The study included patients aged 0-21 years with a diagnosis of heart disease, specifically focusing on patients undergoing cardiopulmonary bypass (CPB) or heart transplantation. Our primary outcome was to determine the prevalence of KCl administration, its safety profile, and identify any risk factors associated with adverse events.

Methodology:

The study was conducted at a single tertiary care pediatric hospital in the United States. Chart review was performed on all patients admitted to the hospital with a diagnosis of heart disease from January 1, 2011, to December 31, 2012. Patients undergoing CPB or heart transplantation were included. KCl use was identified by reviewing electronic medical records, focusing on the administration of KCl through intravenous (IV) or oral routes. The primary endpoint was the prevalence of KCl use, and secondary endpoints included adverse events, patient demographics, and clinical characteristics.

Statistical Analysis:

Descriptive statistics were used to summarize the characteristics of the study population. Categorical variables were presented as counts and percentages, and continuous variables were reported as means and standard deviations. The association between KCl use and patient outcomes was assessed using univariate and multivariate analyses, including logistic regression. The analysis was performed using statistical software (e.g., SPSS, R). The study was approved by the institutional review board (IRB), and all data were de-identified.

Discussion/Conclusions:

KCl use is prevalent in pediatric patients admitted to tertiary care hospitals. Despite the potential benefits of KCl supplementation, there is a recognized need for evidence-based guidelines on its safe and effective use. Our study provides insights into the patterns of KCl administration, identifying factors associated with its use and potential adverse events. Further research is needed to establish best practices and optimize KCl supplementation in pediatric cardiac intensive care.