Gastrointestinal complications in critically ill children: A prospective observational study

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Introduction & Aim: Venous and arterial thromboembolic events (TE) are increasingly recognized in infants and children with approximate incidence of 0.7 per 100,000. This increase is related to increasing survival of children with chronic complex problems, more use of central venous catheters in critically ill children as well as improved imaging modalities for accurate and timely diagnosis of thrombosis. Similarly to adults, these TE may cause serious long-term morbidity in children. Our specific goal was to assess efficacy of thrombolysis and bleeding risks across a range of tPA dosing.

Methods: This was a retrospective case series, conducted in pediatric intensive care unit (PICU) of Aga Khan University Hospital. All children age group with 0 day to 16 years admitted in PICU, who received tPA (dosage: 0.01-0.06 mg/kg/hr.) for thrombolysis were included in the study. Operational definitions were defined as clot resolution. It was divided into three categories: None; partial resolution; complete resolution. Data was collected on a structured proforma. Data was entered and analyzed using SPSS version 20. Only descriptive statistics will be applied.

Results: Seven children, (five males and two females) underwent thrombolysis with tPA during our study period. Three out of the seven children had intracardiac thrombi, whereas the rest had vascular thrombi. Amongst the intracardiac thrombi, two children with congenital heart disease had left ventricular thrombus, while one had a right sided thrombus. The primary diagnoses in children with intracardiac thrombosis were infective endocarditis, thalassemia major and post diphtheria myocarditis. Two out of the three children with intracardiac thrombosis expired, making intracardiac thrombus an important association with mortality. Complete resolution of the clot was noted in six patients (85%). Stroke was the major complication noted in a patient suffering from post-diphtheria myocarditis, which had extensive right external iliac and right ventricular thrombus and eventually expired. No complications were observed in rest of the patients. The degree of clot resolution was not significantly related to age or tPA duration.

Conclusion: Our case series provides an assessment of thrombolysis using tPA in the PICU. This case series is the first from the country and with complete clot resolution in six out of our seven patients; we can safely predict that tPA should be used for thrombolysis in children.

Biography
Sidra Ishaque is currently working in Aga Khan University Hospital, Pakistan. She has published various papers in reputed journals.

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