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Utilization of Enteral Tranexamic Acid To Stabilize Gastrointestinal Hemorrhage in Pediatric Patients on ECMO



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Background

- Incidence and management of Gastrointestinal (GI) bleeding on ECMO is not well reported
- Patients on ECMO require systemic anticoagulation making GI bleeding difficult to manage
- We describe the use of enteral tranexamic acid (TXA) in two pediatric patients with GI hemorrhage on ECMO

Case 1

- 5yr old F with Wilm's Tumor
- pulmonary hemorrhage and air leak requiring VV ECMO
- GI hemorrhage refractory to medical management (IV PPI, IV octreotide gtt, IV TXA gtt), multiple EGD and IR embolizations
- GI bleeding improved with enteral TXA (20 mg/kg q 8 hours)

Case 2

- 3-year-old female burn patient
- Complicated by sepsis and ARDS requiring VA ECMO
- GI hemorrhage refractory to medical management (IV PPI, IV octreotide gtt)
- GI bleeding improved with IV TXA gtt and PO TXA (10 mg/kg q8h).

Observations

- Enteral TXA provided anti-fibrinolytic effects without disrupting systemic circuit anticoagulation
- Enteral TXA did not decrease the number of circuit or component changes
- The circuit had less clot burden comparatively to IV TXA administration

- There was a noticeable decrease in blood product administration in one patient after completing enteral TXA course

Discussion

- In both patients, enteral TXA allowed us to provide systemic anti-fibrinolysis, which was associated with cessation of bleeding but not associated with further circuit thrombosis.

Resources

- Lee PL, Yang KS, Tsai HW, Hou SK, Kang YN, Chang CC. Tranexamic acid for gastrointestinal bleeding: A systematic review with meta-analysis of randomized clinical trials. *Am J Emerg Med.* 2020 Aug 29;S0735-6757(20)30755-5.
- Saini A, Spinella PC. Management of anticoagulation and hemostasis for pediatric extracorporeal membrane oxygenation. *Clin Lab Med.* 2014 Sep;34(3):655-73.
- Khilnani P, Rawal N, Singha C. Gastrointestinal Issues in Critically Ill Children. *Indian J Crit Care Med.* 2020;24(Suppl 4):S201-S204.
- Attard TM, Miller M, Pant C, Kumar A, Thomson M. Mortality associated with gastrointestinal bleeding in children: A retrospective cohort study. *World J Gastroenterol.* 2017 Mar 7;23(9):1608-1617.