

Conundrum of hematochezia in infants with single ventricle physiology in the interstage period: Is it all really cardiac NEC?

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Background

- Hematochezia aka blood in stool had seemed to rise in documentation during the interstage surgical neonatal hospitalization during the last two years.
- This resulted in frustrations from parents as this is an interstage red flag and have increased length of stay for medical and nutritional treatments (ie Antibiotics for Cardiac NEC and formula)

Purpose

- To evaluate the incidence of documented hematochezia and cNEC in our interstage population with any associations of clinical, demographic, or medication findings.

Project Design

- This single site, retrospective review with a cross-section of neonates with single ventricle physiology using CHAMP database and the EHR who were discharged home during the interstage period after CHD procedures from 1/2011/2021.



Results

n=57			
Variable	2019 (n=26)	2020-21 (n=31)	p-value
Bloody Stool	46%	77%	.016
Medically Treated NEC	15%	39%	.047
Neo-Aortic Arch obstruction at DC*	38.5% (5/13)	12.5% (2/16)	.003
Length of Stay	46.8 ± 22.5	68.1 ± 49.5	.047
Lovenox	12%	48%	.002
Reglan	0%	16%	.023
Zantac	35%	0%	<.001
Time to Full Feeds	4.0 ± 3.4	9.3 ± 10.7	.014
Caloric Density at Discharge	23.5 ± 1.4	22.2 ± 1.7	.005
All Formula at Discharge	50%	83.9%	.024

Conclusion

- We confirmed that there was an increase in both the incidence of hematochezia and treatment for cNEC for 2019 to late 2021 with an increased neonatal length of stay.
- There were no differences for SES demographics, surgery types, echo dysfunction or AVVR, rate of PPI or afterload use at dc, pre-operative risks and non-NEC post-op complications.
- There seems to be a protective effect of feeding cautiously with closer rate to full feeds and less kcals at discharge.

Next Steps

- Next step is to examine hematochezia at the patient level (lovenox use, labs, milk type, radiology) on the med-surg unit to see if there are factors for increased odds of bloody stools for potential practice changes.

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