Hypertrophic Pyloric Stenosis Protocol: A Single Center Study

Nelimar Cruz-Centeno
Children's Mercy Kansas City

James A. Fraser MD
Children's Mercy Hospital

Shai Stewart MD
Children's Mercy Hospital

Derek Marlor
Children's Mercy Kansas City

Rebecca M. Rentea
Children's Mercy Kansas City

See next page for additional authors

Follow this and additional works at: https://scholarlyexchange.childrensmercy.org/presentations

Part of the Pediatrics Commons, and the Surgery Commons

Recommended Citation
Cruz-Centeno, Nelimar; Fraser, James A. MD; Stewart, Shai MD; Marlor, Derek; Rentea, Rebecca M.; Aguayo, Pablo; Juang, David; Hendrickson, Richard J.; Snyder, Charles L.; St.Peter, Shawn D.; Fraser, Jason D.; and Oyetunji, Tolulope A., "Hypertrophic Pyloric Stenosis Protocol: A Single Center Study" (2023). Presentations. 78.
https://scholarlyexchange.childrensmercy.org/presentations/78

This Presentation is brought to you for free and open access by SHARE @ Children's Mercy. It has been accepted for inclusion in Presentations by an authorized administrator of SHARE @ Children's Mercy. For more information, please contact hlsteel@cmh.edu.
Creators
Nelimar Cruz-Centeno, James A. Fraser MD, Shai Stewart MD, Derek Marlor, Rebecca M. Rentea, Pablo Aguayo, David Juang, Richard J. Hendrickson, Charles L. Snyder, Shawn D. St.Peter, Jason D. Fraser, and Tolulope A. Oyetunji

This presentation is available at SHARE @ Children's Mercy: https://scholarlyexchange.childrensmercy.org/presentations/78
Hypertrophic Pyloric Stenosis Protocol: A Single Center Study

N. Cruz-Centeno, J. A. Fraser, S. Stewart, D. R. Marlor, R. M. Rentea, P. Aguayo, D. Juang, R. J. Hendrickson, C. L. Snyder, S. D. St. Peter, J. D. Fraser, T. A. Oyetunji
Disclosures:

- Nelimar Cruz-Centeno, MD
- Nothing to Disclose
Introduction:

- Initial management of hypertrophic pyloric stenosis (HPS) is correction of electrolyte disturbances with fluid resuscitation.

- Hypochloremic hypokalemic metabolic alkalosis presents significant anesthetic risks of hypoventilation, apnea, and aspiration.

- Post-operative management focuses on early feedings.
  - Ad lib feeds are associated with faster discharge and time to reach goal feedings.

- Our aim was to describe our HPS protocol and outcomes.
Methods:

- Retrospective review of patients diagnosed with HPS from 2016-2020
- Single tertiary care pediatric center

Exclusion criteria:
- Critically ill secondary to another diagnosis
- Diagnosed with HPS while admitted to the hospital
- Missing information from medical record

Primary outcome: postoperative hospital length of stay (LOS)

Secondary outcomes:
- Total number of preoperative labs drawn
- Time from surgery to initiation of feeds
- Time from surgery to full feeds
- Re-admission and re-operation rate
HPS Protocol:


Results:

302 patients with HPS

Excluded: 31 patients

Included: 271 patients

43.2% had electrolyte derangements

Re-admission rate 3.3%

Re-operation rate 0.4%

Gender
Male 225 (83.0%)
Female 46 (17.0%)

Race
Caucasian 210 (77.5%)
Other 61 (22.5%)

Median age (weeks) 5 (IQR 3.9,6.5)
Median weight (kg) 3.9 (IQR 3.4,4.4)

Outcome | Median (IQR)
---|---
Lab draws | 2 (1,2)
Time from arrival to surgery (hours) | 19.2 (15.1,24.9)
Time from surgery to first feed (hours) | 1.9 (1.2,2.7)
Time from surgery to full feeds (hours) | 11.4 (6.2,19.1)
Post operative LOS (hours) | 22.2 (9.6,30.6)
Conclusions:

- This protocol allows infants with HPS to be managed efficiently
  - Few laboratories draws
  - No uncomfortable interventions
- Feeds were initiated expeditiously in the postoperative period ad libitum
- Most patients were discharged on postoperative day one
- Re-admission rate was low