

Hypertrophic Pyloric Stenosis / Pyloromyotomy Care Guideline

Inclusion Criteria:

Children < 3 months of age with signs, symptoms or exam findings suggesting a diagnosis of hypertrophic pyloric stenosis (HPS)

Exclusion criteria:

Suspected sepsis, bilious vomiting suggesting intestinal obstruction, presence of significant comorbidities or chronic conditions which would alter the approach to care

Information/Recommendations/Considerations

- HPS is one of the most common gastrointestinal disorders during early infancy, with an incidence of 1-2:1000 live births; most common between the ages of 2 and 8 weeks of life
- Hypertrophy of the circular muscle of the pylorus results in constriction and obstruction of the gastric outlet.
- Gastric outlet obstruction leads to non-bilious, projectile emesis, loss of hydrochloric acid with the development of hypochloremic & hypokalemic metabolic alkalosis, and dehydration.
- Surgical myotomy is the primary approach to the management of hypertrophic pyloric stenosis (HPS)
- Preoperative intervention may include NG tube to low intermittent suction, if persistent vomiting before electrolytes are corrected.
- Morphine may be given postoperatively for severe pain not relieved by acetaminophen (use judiciously). The use of opioids may potentiate the risk of respiratory depression in infants undergoing pyloromyotomy
- Patients w/ persistent post-op vomiting will be managed on an individualized basis.

Preoperative History, Diagnosis, and Interventions

- Projectile and/or frequent episodes of non-bilious emesis with or without associated weight loss.
- Increasing frequency and volume of vomiting, despite trials of small frequent feedings of formula or breastmilk.
- Obtain abdominal ultrasound and Panel 9.
- Normal saline bolus 20mL/kg as needed.
- D5¼ NS with 10 mEq/L KCL maintenance rate.
- Correct electrolytes, if abnormal, before surgery. Targets: potassium ≥ 3.0 , chloride ≥ 100 , bicarbonate ≤ 30 .
- If electrolytes abnormal, D5½ NS with 20 mEq/L KCL maintenance rate, consider 1½ x maintenance rate.
- Cefazolin 25 mg/kg x 1 within 60 min prior to incision (if prophylactic antibiotic administered).
- Recheck Panel 9 preoperatively q. 12 hours if initially abnormal & until electrolytes normalized.

Postoperative Assessment

- Vital signs q 1 hr x 2, then q 4 hrs
- Strict I/O
- Apnea monitor
- Pain Assessment and Management (Refer to Patient Care Policy F918)

Postoperative Interventions

- Activity as tolerated
- NPO x 4hrs postop, then begin feeding ad lib
- Acetaminophen 15mg/kg rectal q 4h PRN

Discharge Criteria

- VS stable, afebrile x 24 hrs
- Tolerating ad lib diet x 2-3 feedings
- Abdomen soft, non-distended, without significant tenderness
- Comfortable on PO pain meds

Patient/Family Education

- Pyloric Stenosis Handout located on PAWS in Patient and Family Education

References

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