24/3/26

Stomach & Duodenum

Tumours, masses, precancerous conditions

- ✱ Gastric Outlet Obstruction [Essay]
- ✱ Carcinoma Stomach [Essay]
- ✱ H pylori → Eradication
- ✱ GIST
- ✱ Infantile Hypertropic pyloric Stenosis
- ✱ Congenital Hypertropic pyloric Stenosis.
- ✱ Post gastrectomy Syndrome.
- ✱ Upper gastrointestinal tract bleeding
- ✱ Visible gastric peristalsis.

Gastric Outlet Obstruction

Key points ✱

- Vomiting after food, Visible peristalsis on Epigastrium.
- Abdominal mass (Neoplasm)

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Indicate mechanical obstruction (Stomach is hypertrophied)

- Succussion Splash → (gastric stasis and dilated stomach)

Investigation:-

1) Biochemical & Hematological

- Serum electrolytes :- Hypochloremic Hypokalemic metabolic Alkalosis (Vomiting)
- Renal function Test :- (Urea/Creatinine) dehydration.
- ~~Complete~~ CBC → Iron deficiency.

2) Diagnostic Procedures

→ Nasogastric Aspiration (Large Volume)

→ Upper GI Endoscopy

→ Stomach emptied prior

Findings → growth at antrum/pylorus (Biopsy)

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Adenocarcinoma

3) Staging.

CECT (contrast enhanced)

(TNM) → metastasis, ascites, ovarian (Krukenberg)

Diagnostic laparoscopy (detect distal peritoneal

management

1) preoperative (Resuscitation)

- Fluid and Electrolyte Replacement (Isotonic Saline) 0.9% NaCl)
- PPI Supplementation.
- Gastric Decompression.
- Nutritional Support (Total parenteral Nutrition)

2) Surgical management)

→ Curative Resection

- Distal Radical Gastrectomy
- D2 lymphadenectomy
- Reconstruction: Restored via Billroth II (Polya) or Roux-en-Y gastrojejunostomy

→ Palliative (inoperable / metastatic)

→ palliative Gastrojejunostomy (bypass the obstruction)

→ Endoscopic Stenting: metal Stent across the pyloric structure

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H pylori eradication

- It is + gram -ve, Spiral, microaerophilic
- Colonizes gastric antrum
- Etiology: PUD, chronic gastritis, gastric malignancies [MALT lymphoma, adenocarcinoma]

Indications:-

H pylori +ve

- PUD - Active/past Duodenal / gastric ulcer
- Gastric MALT lymphoma: low grade → regression
- Atrophic gastritis:- prevent metaplasia/dysplasia
- post resection Early gastric cancer
- Unexplained dyspepsia
- Long Term NSAID / Aspirin: ↓ ulcer complication
- Extra-gastric: Fe deficiency anemia, Vit B12 deficiency, ITP

Diagnostic Confirmation:-

- Non invasive: ^{13}C or C^{14} (Urea Breath T)/ Stool Antigen Test (SAT), IgG (Not recom)
- Invasive (Endoscopic): Rapid Urease Test (Histology → Giemsa or Warthin Starry Silver Stain)

℞ Regimen

- PPI + ≥ antibiotics
- Acid suppression: ↑ intragastric pH, Optimizes antibiotic efficacy.

1. 1st line (Triple) → 7-14 days
   - Clarithromycin (500mg BD)
   - Amoxicillin or metronidazole.

Clarithromycin resistance → (Quadruple therapy)

2. Sequential Therapy → 10 days
   - Day 1-5: PPI + Amoxicillin
   - 6-10: PPI + Clarithromycin + Tinidazole/metronidazole.

3. Rescue (Quadruple)
   - Bismuth Subsalicylate (120mg QID)
   - Metronidazole (400mg TID/QID)
   - Tetracycline (500mg QID)
   - PPI (BD)

(Alt PPI + Amoxicillin + Levofloxacin)

Verification →
- → at least 4 wks after completing Antibiotics
- → 2 weeks after stopping PPIs

Method: Non invasive

29/3/20

Congenital Hypertrophic Pylorus Stenosis (CHPS)

→ It is Acquired Condition of Infancy characterized by hypertrophy and hyperplasia of the circular muscle fibers of the pylorus

- Incidence :- 1-4/1000 live births.
- Sex: male : female (4:1) → 1st born male.
- Risk factor :- Familial predisposition of exposure to macrolide Antibiotics (Eg: Erythromycin, Azithromycin)

- C/F
  - onset 3rd-6th week of life.
  - Vomiting : Projectile, Non bilious. Post feeding, curdled milk, Acidic Contents
  - Hungry Vomiter :- Eager to feed persistent.
  - Visible gastric peristalsis (left → Right)
  - Palpable mass : RUQ, mobile, smooth
  - → Dehydration, weight loss, constipation.

Metabolic abnormalities :-
Persistent Vomiting → Hypochloremic, Hypokalemic Metabolic Alkalosis

→ Paradoxical aciduria :- H^+ for Na^+ Exchange → Acidic Urine.

Investigations :-
USG → (Gold standard)
- Pyloric muscle thickness ≥ 4mm
- pylorus canal length > 14mm
- 'Doughnut sign' or target sign on cross section

2. Barium meal :- 'String Sign' (Narrowed pylorus channel) 'double track' or 'Railway'
3. Serum Electrolyte.

Management

Preoperative Stabilization
- Stop oral feeds
- NG aspiration
- Fluid Resuscitation : Isotonic Saline → 0.45% Saline + 5% Dextrose + KCl (After urine output)
- Surgical Treatment
  - Ramstedt's pyloromyotomy
    longitudinal incision, Serosa & muscle, mucosa intact
  - open or laparoscopic.

Postoperative Care :-
feeding : 12-24 hrs
Prognosis : Excellent, low recurrence

Mnemonic (4 Ps)
Projectile vomiting
Palpable mass
Peristalsis visible
Pyloromyotomy (Ramstedt's)