Chronic Abdominal Pain in Gastric Bypass – Etiologies, Strategies and Need for Revision

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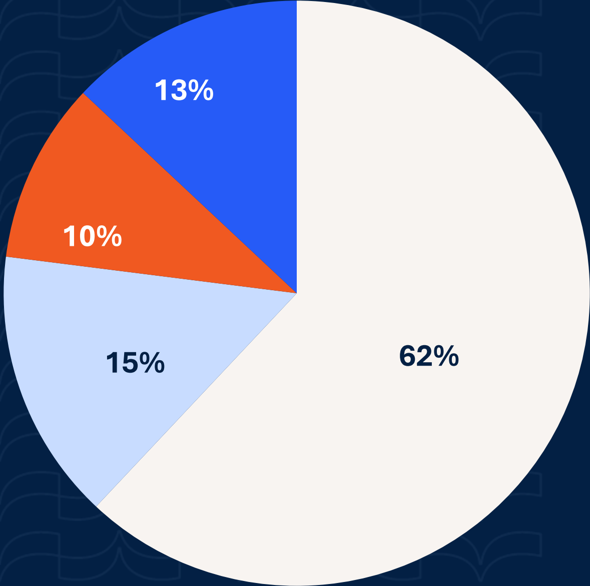
Disclosures

- Teleflex/Standard Bariatrics
- Intuitive
- Medtronic

Bariatric Case Mix



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Sources of Chronic Abdominal Pain after GBP

- Marginal Ulcer **
- Internal Hernia
- Intussusception
- Bile Reflux Gastritis
- Small Intestinal Bacterial Overgrowth
- Candy Cane Syndrome
- Biliary Pathology
- GERD

Marginal Ulcer

- Surgical Factors contributing:
  - Large Gastric Pouch – ~10% risk for every 1cm of pouch
  - Circular Stapler – 2.5 fold increase over linear/hand sewn
  - Permanent Suture – 2 fold risk increase
  - Gastrogastric fistula
- Patient Factors:
  - Smoking – ~5 fold increase
  - NSAID use – 3 fold increase
  - Steroids – ~5 fold increase

Marginal Ulcer

- PPI prophylaxis shown to decrease MU risk from 7.3% to 1.2% after surgery
- Recommend a 3 month course
- Consider a longer course for patients with increased risk factors

- Treatment
  - Risk factor reduction (i.e. smoking cessation, etc)
  - Open PPI capsule and Liquid Carafate
  - If GG fistula – surgical correction

Marginal Ulcer

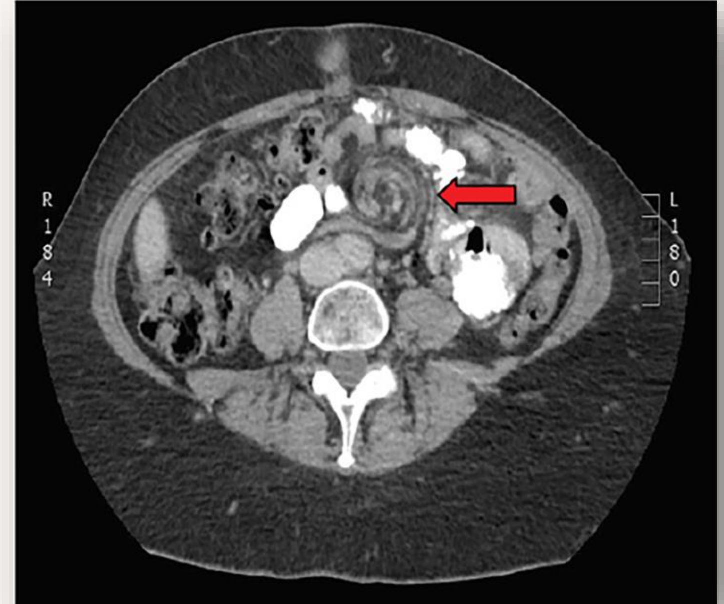
- Complicated MU
  - ~ 25% of MU present with occult or overt bleeding
    - Endoscopic therapy is highly successful
    - Angioembolization
    - Revision
  - ~20% of cases perforate
    - Surgical treatment

Internal Hernia

- Symptoms are often colicky upper abdominal pain, nausea and vomiting
- Incidence
  - 4-17% without mesenteric defect closure
  - 0-7% with mesenteric defect closure
- Risk factors:
  - Rapid weight loss
  - Younger age
  - Pregnancy (increased in 2nd and 3rd trimesters)
  - Non-closure of mesenteric defects

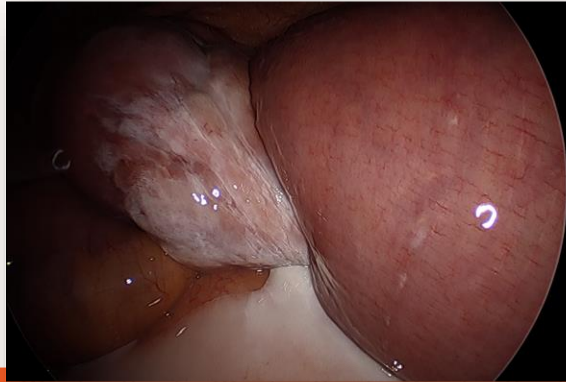
Internal Hernia

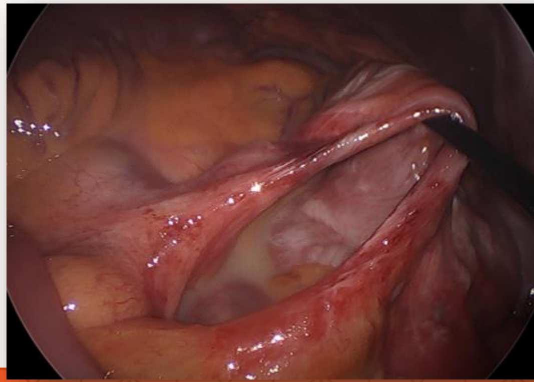
- CT imaging is diagnostic gold standard
  - Mesenteric swirl sign
  - Birds beak sign
  - Clustered small bowel loops
  - Anastomosis on opposite side of abdomen
  - Remnant stomach dilation

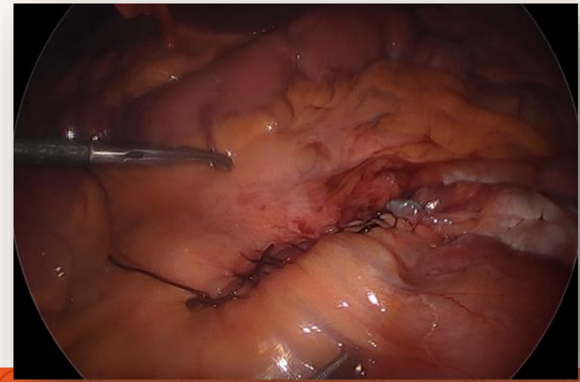


Internal Hernia

- Treatment is surgical
  - Running small bowel retrograde from ileocecal valve
  - Closure of all mesenteric defects
  - Non-absorbing suture

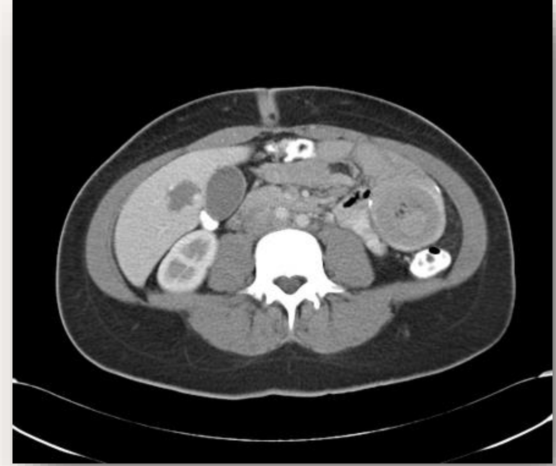






Intussusception

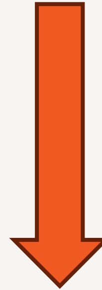
- Rare complication – incidence is 0.15-4.7%
- Symptoms vague
    - Colicky upper abdominal pain, left sided.
    - Nausea and vomiting
- Most likely and common site, Jejunojejunostomy
    - Retrograde is more common than anterograde
- CT imaging – target sign



Intussusception

- Bowel lengths greater than 10cm are associated with bowel obstruction and risk of emergent surgical intervention

- Three surgical options
  - Reduction alone
  - Reduction with plication or pexy
  - Resection and revision



Risk of recurrence

Bile Reflux Gastritis

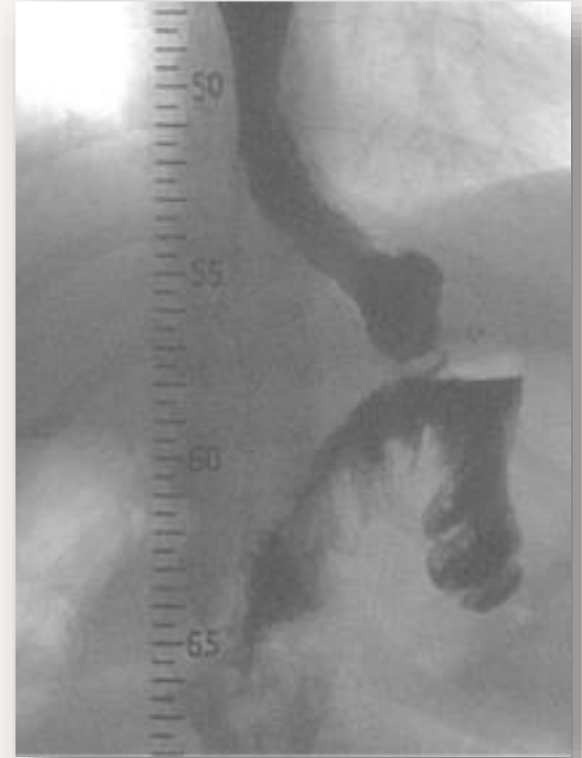
- Rare, but being recognized more often
- Symptoms
  - Epigastric pain (95%)
  - Left/right UQ pain (10%)
  - Burning > sharp > stabbing
- HIDA – shows bile reflux in 36% of asymptomatic patients
- Treatment
  - Ursodiol – 80% of patients with improvement (single study)
  - Remnant gastrectomy – 90% resolution (single study)

Small Intestinal Bacterial Overgrowth (SIBO)

- Missed diagnosis can lead to long term malnutrition and vitamin malabsorption
- Can be detected with a breath test
    - Measurement of hydrogen or methane following PO glucose
- Treatment
    - Antibiotics
        - Metronidazole
        - Rifaximin

Candy Cane Syndrome

- Elongated blind loop of jejunum at the gastrojejunostomy
- Food is caught in the blind limb – leads to abdominal pain, nausea, vomiting, reflux and weight loss
- Diagnosis with endoscopy
- Upper GI shows a “candy cane sign”
- Treatment
  - Endoscopic plication
  - Surgical resection

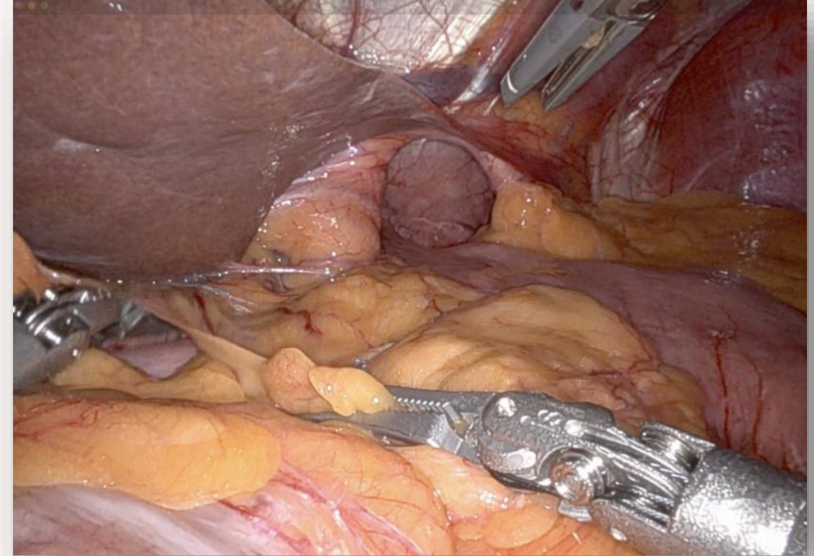


Biliary Pathology

- Gallstone formation is a well known and expected consequence of MBS
- Incidence of symptomatic cholethiasis after MBS is about 12-14%
- Small case series did note an increased incidence of biliary hyperkinesia with ejection fractions > 95%
- Recommendations are for intraoperative cholangiogram in patients getting cholecystectomy following gastric bypass

GERD

- Challenge in patients with GBP
- Sources
  - Large gastric pouch
  - Short roux limb (<60cm)
  - Hiatal hernia
  - Weight gain
  - Impaired esophageal clearance



Energy and Persistence Conquer All Things

Benjamin Franklin

Thank you

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