ADULT RETROGRADE INTUSSUSCEPTION

Brian Tiu
Richmond University Medical Center
September 3, 2015
CASE PRESENTATION

• 41 yo woman

• presented one day hx abdominal pain, worsening

• nausea/vomiting

• denied flatus/BM two days

• s/p laparoscopic leiomyomectomy, POD#2
CASE PRESENTATION

- PMHx: fibroids
- PSHx: RYGB surgery 1999, panniculectomy, plastic surgery for excess skin
- Medications: multivitamin
- NKDA
- 5 pack year smoking history
CASE PRESENTATION

- T98.4, BP150/85, P88, R18, O₂ sat 99%
- Midline scar, dressings over lap port sites, no erythema, tender mostly at RLQ/suprapubic area

CBC 5.9 > 13.1/40.1 < 298; 81% granulocytes

BMP 139 / 3.5 / 108 / 24 / 9 / 0.5 < 77  Ca 7.2

UA negative
exploratory laparotomy - previous midline scar
mild lysis of adhesions
20 cm segment retrograde jejunal intussusception 20 cm from R&Y anastomosis
reduced, no lead point found
ran the small bowel: anastomosis → cecum
POST-OP COURSE

- Admitted to the floor
- POD#1 - passed trial of void
- POD#2 - return of bowel function, tolerated clear liquid diet
- POD#3 - regular diet, d/c home
- POD#6 - clinic visit, no issues
• pathophysiology
• diagnosis
• treatment
• retrograde intussusception
EPIDEMIOLOGY

- adult intussusception - only 5% of all cases
- 1-5% of intestinal obstructions in adults
TYPES

- enteric
- ileocolic/ileocecal
- colonic
• bowel telescopes into an adjacent segment

• obstruction and ischemia to the intussuscepting segment

• 90% associated with pathologic processes

• Tumors act as the lead point in >65% of adult
SIGNS & SYMPTOMS

- mechanical obstruction - pain, nausea/vomiting, distention, obstipation

- strangulation - peritonitis, ↓UOP, fever, tachycardia

- ↓K, ↑Cr, leukocytosis, lactic acidosis
RADIOLOGY

• plain film
• sonography
• CT scan
ULTRASOUND

target sign
CT SCAN

target sign
SURGERY

- peritoneal
- hemodynamic instability
- ischemia/necrosis
- long length, wide diameter of the intussusception
- presence of a lead point - high incidence of tumor
- no role for air/contrast enema
EN BLOC RESECTION

- high incidence of underlying malignancy
- inability to differentiate malignant vs benign pre- or intra-operatively
- theoretical risk of intra-luminal seeding, venous embolization
- anastomotic complications
RETROGRADE INTUSSUSCESSION

- association with gastric bypass surgery
- largest case series: 23 (10 years, >15,000 patients)
- proximal end acts as the intussuscipiens
- distal end is the intussuseptum
HOW CAN WE RESOLVE THIS?

- No lead point
- “Roux stasis syndrome”
  - ectopic pacemakers
  - waves collide in jejunum
  - retrograde peristalsis
### Table 2
Percentage of recurrence and continued pain stratified by operative treatment

<table>
<thead>
<tr>
<th>Operative treatment</th>
<th>Patients (n)</th>
<th>Recurrence (%)</th>
<th>Continued pain (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resection</td>
<td>16</td>
<td>12.5</td>
<td>19*</td>
</tr>
<tr>
<td>Plication</td>
<td>5</td>
<td>40</td>
<td>80†</td>
</tr>
<tr>
<td>Simple reduction</td>
<td>2</td>
<td>100</td>
<td>50‡</td>
</tr>
<tr>
<td>All treatment combined</td>
<td>23</td>
<td>26§</td>
<td>35§</td>
</tr>
</tbody>
</table>

* Three of 16 patients, 2 with recurrence and 1 without.
† Four of 5 patients, 2 with recurrence and 2 without.
‡ One of 2 patients, 1 with recurrence.
§ Percentage of all 23 patients.
CONCLUSIONS OF THE STUDY

• ? Resection and reconstruction of the involved anastomosis
  
• uncut Roux-en-Y
  
• early surgery for peritonitis or obstruction
  
• recurrence can occur regardless of intervention
SUMMARY

• intussusception represents a small percentage of patients presenting with SBO

• surgery indicated peritonitis, hemodynamic instability, ischemia/necrosis, long length/wide diameter of the intussusception, lead point

• suspect retrograde intussusception with RYGB


• Simper, SC. et al. Retrograde (reverse) jejunal intussusception might not be such a rare problem: a single group’s experience of 23 cases. *Surgery for Obesity and Related Diseases*. 2008. (4) 77–83
