Pouch Complications and Therapeutics

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Disclosures

• Consultant: AbbVie, Allergan, Amgen, Biogen, Bristol-Myers Squibb, Celgene, Celltrion, Ferring, Hospira, Janssen, Lilly, MSD, Mundipharma, Mylan, Pfizer, Roche, Samsung Bioepis, Sandoz, Sofar, Takeda

• Lecture fees: AbbVie, Amgen, AstraZeneca, Chiesi, Ferring, Hospira, Janssen, Medtronic, MSD, Mitsubishi Tanabe, Mundipharma, Nikkiso, Otsuka, Pfizer, Samsung Bioepis, Takeda, Tigenix, Zambon

• Research grants: MSD, Takeda, Pfizer
Pouch design: W, S, or J pouch ± mucosectomy?

Double stapled J pouch

- Simplicity
- Good function

Institutional volume and outcome after IPAA (1996-2008, UK)

5771 primary elective pouch procedures were undertaken at 154 National Health Service hospital trusts

- Many surgeons carry out extremely low volumes of IPAA (median: 4 - IQR 1-9 - over 8 years)
- 1/3 patients is operated by a “low-volume” surgeon (<2/yr)
- Case selection differed significantly between high- and low-volume surgeons
- Low caseload (< 4/yr) and old age were associated with increased pouch failure

Laparoscopic vs open colectomy in patients with IBD: systematic review and meta-analysis on short-term outcomes (N=966)


<table>
<thead>
<tr>
<th>Outcome</th>
<th>Laparoscopy</th>
<th>Open</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wound infection</td>
<td>4.6%</td>
<td>10.2%</td>
<td>0.03</td>
</tr>
<tr>
<td>Abscesses</td>
<td>3.4%</td>
<td>12.6%</td>
<td>0.04</td>
</tr>
<tr>
<td>Length of stay</td>
<td>6.9 days</td>
<td>9.5 days</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

CI, confidence interval; IV, inverse variance; M-H, Mantel-Haenszel test

O: confidence interval; IV, inverse variance; M-H, Mantel-Haenszel test
### Anti-TNF associated with early & long-term pouch-related complications

<table>
<thead>
<tr>
<th>Study or subgroup</th>
<th>Events</th>
<th>Total</th>
<th>Events</th>
<th>Total</th>
<th>Weight</th>
<th>M-H, Fixed, 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Favours experimental</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Favours control</td>
</tr>
<tr>
<td>Mor (2008)</td>
<td>24</td>
<td>46</td>
<td>17</td>
<td>46</td>
<td>55.6%</td>
<td>1.86 (0.81, 4.28)</td>
</tr>
<tr>
<td>Kennedy (2012)</td>
<td>4</td>
<td>10</td>
<td>2</td>
<td>18</td>
<td>5.9%</td>
<td>5.33 (0.77, 37.09)</td>
</tr>
<tr>
<td>Gu (2013)</td>
<td>10</td>
<td>25</td>
<td>34</td>
<td>156</td>
<td>38.5%</td>
<td>2.39 (0.99, 5.80)</td>
</tr>
<tr>
<td>Total (95% CI)</td>
<td>81</td>
<td>220</td>
<td></td>
<td></td>
<td>100.0%</td>
<td>2.27 (1.27, 4.05)</td>
</tr>
<tr>
<td>Total events</td>
<td>38</td>
<td>53</td>
<td></td>
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</table>

### Short term

**OR 4.12 NNH 5**

<table>
<thead>
<tr>
<th>Study or subgroup</th>
<th>Events</th>
<th>Total</th>
<th>Events</th>
<th>Total</th>
<th>Weight</th>
<th>M-H, Fixed, 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Favours experimental</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Favours control</td>
</tr>
<tr>
<td>Selvaggi F, et al.</td>
<td>8</td>
<td>41</td>
<td>7</td>
<td>211</td>
<td>15.7%</td>
<td>7.06 (2.40, 20.78)</td>
</tr>
<tr>
<td>Mor (2008)</td>
<td>18</td>
<td>46</td>
<td>2</td>
<td>46</td>
<td>10.4%</td>
<td>14.14 (3.04, 65.69)</td>
</tr>
<tr>
<td>Coquet-Reinier (2010)</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>7.4%</td>
<td>1.00 (0.05, 19.96)</td>
</tr>
<tr>
<td>Rizzo (2011)</td>
<td>3</td>
<td>12</td>
<td>3</td>
<td>18</td>
<td>15.4%</td>
<td>1.67 (0.28, 10.09)</td>
</tr>
<tr>
<td>Kennedy (2012)</td>
<td>1</td>
<td>10</td>
<td>1</td>
<td>18</td>
<td>5.5%</td>
<td>1.89 (0.11, 33.89)</td>
</tr>
<tr>
<td>Gu (2013)</td>
<td>6</td>
<td>25</td>
<td>23</td>
<td>156</td>
<td>41.4%</td>
<td>1.83 (0.66, 5.06)</td>
</tr>
<tr>
<td>Eshuis (2013)</td>
<td>5</td>
<td>21</td>
<td>0</td>
<td>12</td>
<td>4.0%</td>
<td>8.33 (0.42, 165.20)</td>
</tr>
<tr>
<td>Total (95% CI)</td>
<td>162</td>
<td>468</td>
<td></td>
<td></td>
<td>100.0%</td>
<td>4.12 (2.37, 7.15)</td>
</tr>
<tr>
<td>Total events</td>
<td>42</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Heterogeneity: Chi² = 8.213, df = 6 (p=0.22); I² = 27%
Test for overall effect: Z = 5.03 (p<0.00001)

<table>
<thead>
<tr>
<th>Study or subgroup</th>
<th>Events</th>
<th>Total</th>
<th>Events</th>
<th>Total</th>
<th>Weight</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Favours control</td>
</tr>
<tr>
<td>After stoma closure</td>
<td>8</td>
<td>41</td>
<td>7</td>
<td>211</td>
<td>15.7%</td>
<td>7.06 (2.40, 20.78)</td>
</tr>
<tr>
<td>Mor (2008)</td>
<td>18</td>
<td>46</td>
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<td>42</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Heterogeneity: Chi² = 0.98, df = 2 (p=0.61); I² = 0%
Test for overall effect: Z = 2.78 (p=0.005)

**CI, Confidence Interval; df, degrees of freedom; I², percentage of variance; M-H, Mantel-Haenszel test; NNH, number needed to harm; OR, odds ratio**

Outcomes and post-operative complications following colectomy for UC

Approximately one third of patients experience post-operative complications:
28 studies during 2002–2015, N=20,081 UC patients
Long term IPAA success rate: *failure rate of 0.5–1% / year*

### Mayo Clinics

![Mayo Clinics Graph](image)

<table>
<thead>
<tr>
<th>No. at risk:</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
</tr>
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<tbody>
<tr>
<td>UC</td>
<td>1684</td>
<td>1404</td>
<td>963</td>
<td>529</td>
<td>163</td>
</tr>
<tr>
<td>IC</td>
<td>74</td>
<td>74</td>
<td>49</td>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>Crohn’s</td>
<td>44</td>
<td>33</td>
<td>20</td>
<td>12</td>
<td>7</td>
</tr>
</tbody>
</table>

### Cleveland Clinics

![Cleveland Clinics Graph](image)

<table>
<thead>
<tr>
<th>No. at risk:</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC and other</td>
<td>5</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Crohn’s</td>
<td>20</td>
<td>163</td>
<td>529</td>
<td>963</td>
<td>1404</td>
</tr>
</tbody>
</table>

**Most common causes:** pelvic sepsis, chronic refractory pouchitis, CD of the pouch and pouch fistula or sinus

IC, indeterminate colitis; IPAA, ileal pouch-anal anastomosis; UC, chronic ulcerative colitis

Restorative proctocolectomy: functional outcome

- Bowel movement 6x/day
- Anti-diarrhoeal medication every 3rd day
- Pouchitis 50%
  - 5%-10% chronic
- Soiling/spotting 25%
- Nerve damage in males <0.5%
- Fertility decrease down to one third
- Pouch failure 0.5–1% per year
  - Late anastomotic leak
  - Pouchitis
  - Crohn’s disease

Obese patients have an increased risk for postoperative complications.

Women with a history of obstetric complications may be at risk of postoperative incontinence.

Elderly patients with a history of sphincter damage or dysfunction may be at an increased risk for postoperative incontinence.

Patients with Crohn's disease and indeterminate colitis may have increased complications with IPAA, but highly specific patient selection leads to good rates of pouch retention.

Chang S. et al  Gastroenterol Hepatol 2017;13:466-75
Diseases of the Ileal-Pouch

**Surgical/mechanical**
- Strictures
- Abscesses
- Fistulae
- Leaks
- Mega Pouch/Pouch prolapse/torsion

**Inflammatory/infectious**
- Pouchitis
- Pre-pouch ileitis
- Cuffitis
- Infections
- Inflammatory polyps

**Functional**
- Irritable Pouch
- Poor Pouch Compliance

**Dysplasia/Neoplasia**
- Anaemia
- Osteoporosis
- Vit B12 def
- Malnutrition

**Systemic/Metabolic**
- Anaemia
- Osteoporosis
- Vit B12 def
- Malnutrition

JCC 2017;11:649-70
Pouch-anal Anastomosis: Surgical/Mechanical Complications

- Hand sewn
  - Disruption
  - Sphincter damage
- Stapled
  - Dehiscence
  - Fistula
  - Stenosis
  - Pelvic sepsis
  - Incorrect level of anastomosis
  - Too high: Cuffitis, Fistula, Stenosis
  - Too low: Incontinence

Pouch-anal Anastomosis: Surgical Complications

- **Hand sewn**
  - Disruption
  - Sphincter damage

- **Early**
  - Re-suture

- **Late**
  - Drainage of pelvic sepsis
  - Consider redo-pouch!

- Internal s. → sphincteroplasty
- External partial → sphincteroplasty (?)
- Internal and external → more than 90% risk of permanent ileostomy
Pouch-anal Anastomosis: Surgical Complications

- Hand sewn
  - Small ‘radiologic’ fistula
    - Conservative treatment

- Stapled
  - Dehiscence
    - Redo pouch if possible
  - Fistula
    - Clinical fistula
      - Drain sepsis from abdomen
      - Drain sepsis transanally
    - Evolution to chronic sinus
Pouch-anal Anastomosis:
Surgical Complications

Hand sewn
Fibrotic or long stenosis

Stenosis

Stapled
Short and soft stenosis

After fistula healing

Digital or Hegar dilatation

Following to a longer defunctionalised stage
Stenosis
Almost always due to ischaemic damage of the pouch

Pouch-anal Anastomosis:
Surgical Complications

Hand sewn
Fibrotic or long stenosis
Almost always due to ischaemic damage of the pouch

Stapled
Short and soft stenosis

Stenosis
Conservative measures (dilation during EUA) are not sufficient
If possible, REDO pouch

SHORT and FIBROTIC stenosis (endpoint of a septic process)
Conservative measures are better:
• Self-dilation with Hegar
• Self-empty with catheters

EUA: examination under anaesthetic
Anastomotic leak is an anastomotic separation leading to emission of pouch luminal content (frequency: 2%) The most common location of an anastomotic leak is at:
1) the pouch-anal anastomosis
2) the tip of the “J”
3) the body of the pouch along the staple line

Patients usually present with symptoms of pelvic sepsis
Prolonged fecal diversion/surgical repair/endoluminal therapy

Pouch Sinus

- Defined as a blind tract that may lead to abscess cavity
- Typically a later presentation of an initial anastomotic leak
- Common symptoms are perianal pain, pelvic pressure and discomfort, and tailbone pain
- Severe and complex sinus may result in intermittent fever, weight loss, and anaemia

Pouch Sinus

- Sinus opening and sinus tract can be detected by a combined assessment of pouchoscopy, contrasted pouchogram, EUA and pelvic MRI

- Treatment usually includes periodic incision and drainage of the chronically infected superficial sinuses to promote secondary healing and closure

- It may take up to 9 to 12 months before these sinuses heal. Fibrin glue injection of the sinus may be attempted

- Patients with a long sinus track who do not have complete healing following ileostomy closure, are usually candidates for a redo pouch procedure
Afferent Limb Syndrome

Distal small bowel obstruction caused by an acute angulation, prolapse, or intussusception of the afferent limb at the junction to the pouch

- Most patients present recurrent intermittent abdominal pain because of obstruction
- Endoscopic dilatation, resection of the angulated bowel, pexy of the pouch, pouch excision with end ileostomy, and mobilization of the pouch with small bowel fixation are required

Pouch Dysfunction

Mega Pouch

Excessive pouch enlargement and risk of torsion

Prevention with Tailored-Pouch

(depending on patient’s anatomy - e.g. sizing the pouch from elevator muscles floor to the sacral promontory)
Ischaemic Pouch

- With “ischaemic” pouchitis typically 80% of patients do not respond to antibiotic therapy and can be classified as having chronic antibiotic-refractory pouchitis.

- The endoscopic findings (asymmetric inflammation of pouch body with a sharp demarcation of inflamed or non-inflamed parts) of ischaemia may persist in the majority of patients despite medical therapy.

- May determine fibrotic or long stenosis.

- Patients may develop pouch failure, leading to pouch excision.

Shen B. et al Inflamm Bowel Dis 2010; 16:836-46
Pouchitis: Definition

• Nonspecific inflammation of the ileal reservoir resulting in variable clinical symptoms
• Pouchitis is a well-recognised long-term complication of restorative proctocolectomy

Sandborn WJ. Gastroenterology 2004
# Pouchitis: Long-term Incidence

<table>
<thead>
<tr>
<th>Study</th>
<th>Mean Follow-up years (range)</th>
<th>Patients n</th>
<th>Patients With Pouchitis n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simchuk¹</td>
<td>3 (0.5–8)</td>
<td>114</td>
<td>67 (59)</td>
</tr>
<tr>
<td>Kuisma²</td>
<td>8.8 (7–12)</td>
<td>44</td>
<td>33 (75)</td>
</tr>
<tr>
<td>Meagher³</td>
<td>6.5 (2–15)</td>
<td>1310</td>
<td>559 (43)</td>
</tr>
<tr>
<td>Stahlberg⁴</td>
<td>4.5 (0.4–12.7)</td>
<td>149</td>
<td>76 (51)</td>
</tr>
<tr>
<td>Hurst⁵</td>
<td>3.3 (1–8.1)</td>
<td>104</td>
<td>52 (50)</td>
</tr>
<tr>
<td>Luukkonen⁶</td>
<td>2.3 (0.5–6.7)</td>
<td>179</td>
<td>41 (23)</td>
</tr>
</tbody>
</table>

² Kuisma et al. *Gastroenterology.* 1998;114:A23
⁵ Hurst RD et al. *Arch Surg.* 1996;131:497–500
Pouchitis: Risk factors

- Extensive colitis
- Backwash ileitis
- EIMs (mainly PSC)
- Non-smokers
- Regular use of NSAIDs
- P-ANCA +
- Genetic factors
Pouchitis: diagnosis

**Symptoms:** increased stool frequency and liquidity, abdominal cramping, urgency, tenesmus, pelvic discomfort, rectal bleeding (cuffitis), fever (rare), EIMs, poor fecal continence

**Endoscopy:** erythema (also patchy), oedema, granularity, friability, contact bleeding, loss of vascular pattern, mucous exudates, erosions and ulcerations

**Histology:** acute inflammatory infiltrate (PMN, crypt abscesses, ulceration) in association with a chronic inflammatory infiltrate

---

**Table 1. Pouchitis Disease Activity Index (4)**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical</td>
<td></td>
</tr>
<tr>
<td>Stool frequency</td>
<td></td>
</tr>
<tr>
<td>Usual postoperative stool frequency</td>
<td>0</td>
</tr>
<tr>
<td>1-2 stools/day &gt; postoperative usual</td>
<td>1</td>
</tr>
<tr>
<td>≥3 stools/day &gt; postoperative usual</td>
<td>2</td>
</tr>
<tr>
<td>Rectal bleeding</td>
<td></td>
</tr>
<tr>
<td>None or rare</td>
<td>0</td>
</tr>
<tr>
<td>Present daily</td>
<td>1</td>
</tr>
<tr>
<td>Fecal urgency or abdominal cramps</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>Occasional</td>
<td>1</td>
</tr>
<tr>
<td>Usual</td>
<td>2</td>
</tr>
<tr>
<td>Fever (temperature &gt; 37.8°C)</td>
<td></td>
</tr>
<tr>
<td>Absent</td>
<td>0</td>
</tr>
<tr>
<td>Present</td>
<td>1</td>
</tr>
<tr>
<td>Endoscopic inflammation</td>
<td></td>
</tr>
<tr>
<td>Edema</td>
<td>1</td>
</tr>
<tr>
<td>Granularity</td>
<td>1</td>
</tr>
<tr>
<td>Friability</td>
<td>1</td>
</tr>
<tr>
<td>Loss of vascular pattern</td>
<td>1</td>
</tr>
<tr>
<td>Mucous exudate</td>
<td>1</td>
</tr>
<tr>
<td>Ulceration</td>
<td>1</td>
</tr>
<tr>
<td>Acute histological inflammation</td>
<td></td>
</tr>
<tr>
<td>Polymorphic nuclear leukocyte infiltration</td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>1</td>
</tr>
<tr>
<td>Moderate + crypt abscess</td>
<td>2</td>
</tr>
<tr>
<td>Severe + crypt abscess</td>
<td>3</td>
</tr>
<tr>
<td>Ulceration per low-power field (mean)</td>
<td></td>
</tr>
<tr>
<td>&lt;25%</td>
<td>1</td>
</tr>
<tr>
<td>25-50%</td>
<td>2</td>
</tr>
<tr>
<td>&gt;50%</td>
<td>3</td>
</tr>
</tbody>
</table>

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Pouchitis subtypes

Based on Symptom duration
- Acute ≤ 4 weeks
- Chronic > 4 weeks (~10-20%)

Based on Symptom pattern (>50%)
- Infrequent (<1 acute episode/year)
- Relapsing (1-3 acute episodes/year)
- Continuous or chronic

Based on Response to antibiotics
- Responsive
- Dependent (ongoing ab therapy to maintain response)
- Refractory

Pardi DS, et al. IBD 2009
Acute Pouchitis
ECCO Statement 10B

• The majority of patients respond to metronidazole or ciprofloxacin, although the optimum modality of treatment is not clearly defined [EL2]
• Side effects are less frequent using ciprofloxacin [EL2]
• Antidiarrhoeal drugs may reduce the number of daily liquid stools, independently of pouchitis [EL5]
Prevention of pouchitis

Figure 9. Forest plot of comparison: 3 Prevention of Pouchitis, outcome: 3.1 VSL#3 vs. Placebo: No Episodes of Acute Pouchitis (PDAI ≥ 7).

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>VSL#3 Events</th>
<th>Total</th>
<th>Placebo Events</th>
<th>Total</th>
<th>Weight</th>
<th>Peto Odds Ratio</th>
<th>Peto Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gionchetti 2003</td>
<td>18</td>
<td>20</td>
<td>12</td>
<td>20</td>
<td>100.0%</td>
<td>4.78 [1.16, 19.56]</td>
<td>4.76 [1.16, 19.56]</td>
</tr>
</tbody>
</table>

Total (95% CI): 20 events, 20 events, 100.0% weight
Heterogeneity: Not applicable
Test for overall effect: $Z = 2.16$ (P = 0.03)

Figure 10. Forest plot of comparison: 3 Prevention of Pouchitis, outcome: 3.2 VSL#3 vs. No Treatment: No Episodes of Acute Pouchitis (PDAI ≥ 7).

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>VSL#3 Events</th>
<th>Total</th>
<th>No treatment Events</th>
<th>Total</th>
<th>Weight</th>
<th>Peto Odds Ratio</th>
<th>Peto Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pronio 2008</td>
<td>16</td>
<td>16</td>
<td>11</td>
<td>12</td>
<td>100.0%</td>
<td>10.31 [0.20, 541.25]</td>
<td>10.31 [0.20, 541.25]</td>
</tr>
</tbody>
</table>

Total (95% CI): 16 events, 12 events, 100.0% weight
Heterogeneity: Not applicable
Test for overall effect: $Z = 1.15$ (P = 0.25)
Chronic Pouchitis

- Patients who fail to respond to antibiotics
- Patients who continuously relapse once antibiotics are stopped
In chronic pouchitis a combination of two antibiotics is effective [EL3]. Oral budesonide, oral beclomethasone dipropionate [EL3], and topical tacrolimus [EL3] are alternatives. Infliximab is effective for the treatment of chronic refractory pouchitis [EL4]. Adalimumab may represent an alternative treatment in patients refractory to infliximab [EL4].
Management of chronic refractory pouchitis: systematic review and meta-analysis

Overall remission rate 59% (44-73)
Antibiotics 70% (50-90)
Biologics 53% (30-76)
Maintenance of remission

Figure 8. Forest plot of comparison: 2 Chronic Pouchitis, outcome: 2.4 VSL#3 vs. Placebo: Relapse of Pouchitis (PDAI increase ≥ 2).

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Placebo</th>
<th>VSL#3</th>
<th>Peto Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Events</td>
<td>Total</td>
<td>Events</td>
</tr>
<tr>
<td>Gionchetti 2000</td>
<td>20</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>Mimura 2004</td>
<td>15</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>Total (95% CI)</td>
<td>36</td>
<td>40</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Total events: 35 events, 6 events
Heterogeneity: Chi² = 0.13, df = 1 (P = 0.72); I² = 0%
Test for overall effect: Z = 7.08 (P < 0.00001)
Chronic Refractory Pouchitis

Exclude:

• Crohn’s disease
• Anastomotic stricture
• Infectious etiology (CMV, C. difficile)
• Cuffitis
• Irritable Pouch Syndrome
Cumulative frequency of CD of the pouch and of pouch failure

CD of the pouch

Pouch failure

Shen B, Am J Gastroenterol 2005
Crohn’s Disease of the Pouch
Perianal Disease

diagnosis of CD should be considered if:

• Fistulae or abscesses develop greater than 12 months after IPAA
• Fistulae or abscesses develop in the area outside pouch - anal anastomosis
• Presence of concurrent small bowel disease
Stapled Anastomosis

Cuffitis

• Usually no symptoms

• Symptoms could be due to complications (such as stenosis)

• Bleeding, anal irritation, anal discomfort, pouchitis-like symptoms, extraintestinal manifestations

Shen B. Am J Gastroenterol 2005;100:93-101
Cuffitis: treatment

• Topical mesalazine
• Topical and oral steroids
• Immunomodulators for steroid-dependent patients

Prepouch Ileitis

- 33/546 (6%) and in 57/1286 (4.4%) patients and most of these had concurrent pouchitis

- Of the patients with PI:
  - About 20% received no specific treatment
  - About 25% responded to antibiotics
  - > 50% required escalation in therapy to steroids/immunomodulators or anti–TNFα
  - < 20% of pouch failure

- Potent immunosuppressive treatment was required more frequently in patients with PI than those with pouchitis alone
Cumulative incidence of pouch neoplasia (cancer + dysplasia) in 3203 patients with IBD and RPC (1983-2009)

Kariv R et al, Gastroenterology 2010

- Dysplasia: 23 (0.72%)
- Adenoca of the pouch or ATZ: 11 (0.36%)
- ATZ SCC: 3 (0.08%)
- Pouch lymphoma: 1 (0.03%)

Pouch neoplasia after IPAA

Cumulative incidence ( weakest to strongest: Pouch cancer, Pouch dysplasia, Pouch neoplasia)
Algorithm for surveillance?

Pouch Patients with Underlying Inflammatory Bowel Disease

High-risk Patients
- Pre-op neoplasia

Possible Increased-risk Patients
- UC > 10 yrs
- Chronic pouchitis/Cuffitis
- Type C mucosa
- Family history of colon cancer
- Primary sclerosing cholangitis
- Backwash ileitis at colectomy

Average-risk Patients

Pouchoscopy & Biopsy
Q 3 Yrs after 10 of UC Diagnosis

Pouchoscopy & Biopsy
Q 1 – 3 Yrs

Pouchoscopy & Biopsy
Q 1 Yr

Liu Zx et al, Cancer 2011
Conclusions

• Pouch surgery is a complex one

• Case-load influences outcome ‘ongoing’ learning curve

• Stapled J-pouch procedure of choice

• Early and late morbidity remains considerable