Outline

• What is IBD? - Conditions and Symptoms

• Surgery for IBD – Relevance and Options

• Outcomes and bowel function issues
Inflammatory Bowel Disease

- Ulcerative Colitis and Crohn’s Disease
- Chronic intestinal inflammation
- Autoimmune conditions
- Genetic susceptibility
- Environmental factors - diet / lifestyle
- Gut Microbes
Crohn’s Disease (CD)

- Dr Burril B. Crohn in 1932
- 3-20 cases per 100,000
- Incidence peaks — 20-30y and 50y
- Skip lesions
- Inflammatory, Strictureing, Fistulating

What is Crohn’s Disease?

Crohn’s Disease is an immune-mediated disease that can affect any part of the digestive tract from mouth to anus.
Typical symptoms

- Variable
- Abdominal pain and diarrhoea
- Weight loss, fever, fatigue
- Stricturing disease – bowel obstruction
- Fistula or abscess
- Peritonitis
- Perianal disease
Ulcerative Colitis

- 1800’s – Samuel Wilks
- UC > CD
- 20’s or 30’s
- 1-20 cases per 100,000 p.a.
- Continuous colonic inflammation – from rectum proximally
Typical symptoms

- Bloody diarrhoea, abdominal pain, urgency and tenesmus
- Weight loss, fever
- Extra intestinal manifestations
- Mild, moderate, severe, fulminant
- Extent of involvement
- Diagnosis – endoscopic examination and histology
Surgery for IBD
70-90% of CD patients have surgery

• Strictures and bowel obstruction
  – Most common reason
• Intra-abdominal abscess, fistulae
  – 1/3 of patients with CD – entero-enteric fistulae
• Perforation
  – Ileitis, colitis or toxic megacolon
• Failure of medical therapy
• Malignancy
  – Risk of small bowel cancer or colorectal
Common procedures in CD

• Ileocolic resection
  – Ileo-caecal strictures
  – Failure of medical management
  – 87% patients require surgery
  – Primary anastomosis

• Commonly laparoscopic
Stricturoplasty

- Ileal and colonic
- Safe alternative
- Preserve bowel length
- Can be performed for colonic Crohn’s
- Higher recurrence in colonic vs resection
Panproctocolectomy

- Colonic cancer
- Pre-cancer – DALM
- High grade dysplasia
- High rate of metachronous cancers in segmental resection – 30-40%
Surgery UC

- Up to 30% require surgery
- Surgery curative – medical treatment
- Failure of medical management
- Toxic megacolon
- Perforation
- Uncontrolled haemorrhage
- Dysplasia or cancer
Subtotal colectomy

- Emergency setting – fulminant UC
- Severe UC – high mortality
- Avoid prolonged medical management
- Timely surgery
Ileo-anal Pouch (IPAA)

- Since late 1970’s
- Avoid permanent ileostomy – more normal lifestyle
- Good quality of life for majority
- 2 stage or 3 stage
- Terminal ileal ‘J’ Pouch
Laparoscopic Surgery

- Reduced length of stay
- Improved cosmesis
- Adhesions reduced
- Reduced wound infections
- BUT technically challenging + takes longer
- SILS – Single port laparoscopic surgery
Robotic Surgery

- Robotic colorectal established at STH
- Improves surgical dexterity, views
- Cost £££
- No PROVEN benefits vs LAP
- Proctectomy
The Future

- Robotic single site surgery (R-SILS)
- TRANSANAL SURGERY (TA-TME)
- NOTES – natural orifice transluminal surgery
- ROBOTIC NOTES
Outcomes and Bowel Function Issues
Recurrence- CD

• Relapse rate 36%
• Anastomotic stricture- 30%
• Remove minimum bowel and anastomose
• Minimally invasive

| TABLE 4. Risk Factors for Clinical Recurrence After Surgery^{126} |
|-------------------|---------------------|-------------------|---------------------|
| Risk factors      | Stricturing or fistulizing disease | Active tobacco abuse | Prior intestinal resection (especially >50 cm) |
|                   | Early age of onset of disease | Perianal disease   | Adapted with permission from Alimentary Pharmacology and Therapeutics.^{126} |
Stomas

• Temporary
  – Defunctioning ileostomy
    • Pouch
  – Defunctioning Colostomy
    • Perianal disease
  – End ileostomy
    • Ileocolic resection
  – End colostomy
    • Colonic resection

• Permanent
  – End Ileostomy
    • Panproctocolectomy
    • Subtotal colectomy
  – End colostomy
    • Colonic resection
  – Pouch excision
Stomases

- Highest rated concern surgery – stomas
- ‘Rather die than have a stoma’
- Cosmetic – young patients – body image
- Delay in surgery – more complex, poor outcomes
- Accurate information/ Stoma counselling/ Psychological support
Short Gut syndrome

- Intestinal failure- failure to maintain adequate nutrition via intestines
- Requires treatment with intravenous fluids and /or nutrients (parenteral nutrition)
- CD – multiple bowel resections -5-18% PN
- Less than 150 cm small bowel. Imminent < 100cm
- Type III Intestinal failure – HPN or HPE
# Pouch outcomes

<table>
<thead>
<tr>
<th>Condition</th>
<th>Reported incidence (%)</th>
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<tbody>
<tr>
<td>Leak from IPAA\textsuperscript{16}</td>
<td>7</td>
</tr>
<tr>
<td>Anastomotic sinus\textsuperscript{42,43}</td>
<td>2–8</td>
</tr>
<tr>
<td>Healed after delayed ileostomy closure\textsuperscript{44}</td>
<td>50</td>
</tr>
<tr>
<td>Symptomatic stricture\textsuperscript{46}</td>
<td>16</td>
</tr>
<tr>
<td>Pelvic sepsis\textsuperscript{39}</td>
<td>6</td>
</tr>
<tr>
<td>Pouch–cutaneous fistula\textsuperscript{16}</td>
<td>5</td>
</tr>
<tr>
<td>Pouch–vaginal fistula\textsuperscript{52}</td>
<td>3–15</td>
</tr>
<tr>
<td>Operative success</td>
<td>50</td>
</tr>
<tr>
<td>Small bowel obstruction\textsuperscript{35,36}</td>
<td>13–25</td>
</tr>
<tr>
<td>Requiring operation\textsuperscript{35}</td>
<td>25</td>
</tr>
<tr>
<td>Symptomatic pouchitis (cumulative incidence at 10 years)</td>
<td>40–50</td>
</tr>
<tr>
<td>Symptomatic portal vein thrombosis\textsuperscript{56,57}</td>
<td>6</td>
</tr>
<tr>
<td>Ultimate failure of pouch\textsuperscript{16}</td>
<td>4</td>
</tr>
<tr>
<td>Permanent diversion</td>
<td>1</td>
</tr>
<tr>
<td>Pouch excision</td>
<td>3</td>
</tr>
</tbody>
</table>
Pouchitis

- Pouchitis – 50%
- Stool frequency, urgency, cramps
- Rectal Bleeding
- Treatment
  - Antibiotics
    - Metronidazole/Cipro
  - Probiotics – VSL#3
Summary

• Surgery commonly needed
• Timely referral for surgery = better outcomes
• Technology driven advances
• Long term bowel dysfunction common
• Multi-Disciplinary approach