Surgical Procedures

Restorative Proctocolectomy: Ileoanal Pouch

Suzzie Hobbins RN CNOR
Feza H. Remzi M.D., FACS, FASCRS
Department of Colorectal Surgery
Digestive Disease Institute
Cleveland Clinic
Cleveland
The Cleveland Clinic

Founded on February 21, 1921

- Our mission is to provide...
- Better care of the sick
- Investigation of their problems
- Further education of those who serve
Objectives

• Understanding Familial Adenomatous Polyposis (FAP) and Inflammatory Bowel Disease (IBD)
• Patient Advocacy
• History of Surgical Treatments
• Restorative Proctocolectomy
• Perioperative Care:
  – Education/Preparation,
  – Intraoperative Care
  – Postoperative Care
Familial Adenomatous Polyposis

- Autosomal-dominant colorectal cancer syndrome
- Caused by mutation of adenomatous polyposis gene
- APC gene found on long arm of chromosome 5
- Polyps begin to develop @ approx 16 years
- 100’s polyps → dense carpet like appearance
- Left untreated → 100% chance of colorectal cancer by age of 35-40
- Surgical removal only effective treatment
Inflammatory Bowel Disease

- Crohn’s Disease & Mucosal Ulcerative Colitis
- Men & women equally affected
- Most commonly diagnosed 15 – 35 years
- Patients experience flare-ups without warning
- Affects lining of colon and rectum
- Research indicates IBD inherited disease
Crohn’s

- Involves any part of digestive tract
- Mouth → Anus
- Skin Tag Cardinal Sign
- Affects all Layers of Small & Large Intestine
- Cause unknown
Mucosal Ulcerative Colitis

- Affects colonic mucosa
- Etiology unknown → vigilant monitoring of colon & rectum for dysplastic changes
- Surgery must be discussed
- Emergency surgery performed for:
  - Life threatening complications
  - Fulminant Colitis
  - Toxic Megacolon
  - Massive Hemorrhage
Education & Preparation

• Surgery must be adequately explained
• Informed consent thoroughly discussed & signed by both patient and surgeon
• Review risks & benefits ➔ all questions adequately answered
• H&P ➔ optimally prepared for surgery
• Review labs & radiology
• Arrange pain management
• Ensure pre-operative bowel prep administration
Education & Preparation

- Pre-operative skin preparation → SSI prevention
- Antibiotics administered 1/24 before incision + ceased within 24 hours post surgery
- Low molecular weight heparin D/C prior to surgery
- Enteral/parenteral nutrition → maintain nutritional status/correct nutritional deficiency
- Wound/ostomy nurse consultation for ostomy site verification pre-operatively
The effective use of advocacy can potentially decrease communication errors and provide for increased patient safety.
Development of the Reservoir

- 1927 Dimitriu: U shaped ileal rectal conduit after cancer resection
- Devine 1943, Colectomy with ileo-rectal anastomosis four stages
- 1955 Valiente / Bacon: S reservoir in humans
- 1967 Drobin: TPC and anal ileostomy; 35 cases
- 1971 Peck: Ileal reservoir in humans
- 1977 Martin: IAA; success in 15/17 patients
- 1978 Parks / Nicholls: S-Pouch
- 1980 Utsonomiya: J-Pouch
- 1985 Nicholls: W-Pouch
Devine 1943
Colectomy with ileo-rectal anastomosis
four stages
Valiente and Bacon 1955

Straight Ileo-anal
Poor Function

Urgency and Frequency
Rupert B. Turnbull (Cleveland, Ohio): I would like to commend the authors for trying to keep this dream of ileorectal anastomosis alive because I believe that somewhere in the future someone may perhaps solve this problem; and as the authors have stated in their work, it would be desirable to be able to remove the rectum and have intestinal continuity rather than a stoma on the abdomen. I think this is in the dream stage, however, at the present time.
Intra-abdominal “Reservoir” in Patients With Permanent Ileostomy

Preliminary Observations on a Procedure Resulting in Fecal “Continence” in Five Ileostomy Patients

Nils G. Kock, MD, Göteborg, Sweden
Proctocolectomy without ileostomy for ulcerative colitis

A G PARKS, R J NICHOLLS

British Medical Journal, 1978, 2, 85-88

1978
Cleveland Clinic IPAA Experience

- 3174 patients in the database
- Exclusions: patients who underwent previous IPAA elsewhere and then presented to CCF
- 3080 patients between 1983 and 2006
- Mean age: 37.8 years
- Median follow-up: 6.1 years (2.6-11.1)
### 30 Day Complication Rate (%)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wound infection</td>
<td>5</td>
</tr>
<tr>
<td>Sepsis</td>
<td>3.7</td>
</tr>
<tr>
<td>Hemorrhage</td>
<td>3.2</td>
</tr>
<tr>
<td>Obstruction</td>
<td>3.7</td>
</tr>
<tr>
<td>Fistula</td>
<td>1.1</td>
</tr>
<tr>
<td>Anastomotic stricture</td>
<td>0.2</td>
</tr>
<tr>
<td>Anastomotic separation</td>
<td>2.5</td>
</tr>
<tr>
<td>Pouch Failure</td>
<td>0.07</td>
</tr>
</tbody>
</table>
Post-operative Care

- Monitor vital signs → watch for signs & symptoms of sepsis
- Monitor intake, output & lab results → electrolyte imbalance
- Observe for signs & symptoms of bowel obstruction → vomiting, pain, fever
- Manage pain → PCA
- Parenteral nutrition → maintain nutritional status
- Carefully monitor stoma → report deviation from normal appearance & output
- Surgical site wound care → prevention infection/sepsis
- Monitor for pouchitis
- Provide emotional support and counseling
Results on 3080 Patients

• 97% patients said that they would undergo surgery again

• 97.4% patients stated that they would be willing to recommend surgery to other patients
References


