SURGICAL TREATMENT OF ULCERATIVE COLITIS

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SURGICAL TREATMENT OF ULCERATIVE COLITIS

- Affects the mucosa of the colon and rectum
- Associated with extra-intestinal manifestations
- Presented as:
  a) Acute colitis with or without complications
  b) Chronic disease
Surgery in ulcerative colitis

a. Is curative for the enteric component of the disease

b. Eliminates most of the extraintestinal manifestations

c. Eliminates the risk of malignancy
INDICATIONS OF SURGERY

- Treatment of acute colitis refractory to conservative treatment
- Treatment of chronic colitis in symptomatic disease when is poorly controlled or because of side effects of conservative therapy
- Prophylactically to avoid development of cancer in long standing symptomatic or asymptomatic disease
Conservative Treatment of UC

- The philosophy is “saving the colon” by drug therapy
- Several Questions arise:
  1. Is this always possible?
  2. What about side effects of the drugs?
  3. Conservative treatment for how long?
  4. Are the drugs always effective?
  5. What about the cost of treatment?
     (drugs, colonoscopies, biopsies, hospitalising)
  6. What is the QOL of the patients?
INDICATIONS FOR SURGERY IN THE ACUTE DISEASE

- Severe colitis not responding to medical treatment
- Fulminant colitis with acute abdomen
  a. Toxic megacolon
  b. Walled-off perforation
  c. Free perforation
- Hemorrhage
INDICATIONS FOR SURGERY IN THE ACUTE DISEASE

Absolute indications for surgery

1) Severe uncontrolled bleeding

2) Perforation of the bowel, which is the most fatal complication of acute colitis with or without megacolon
Reminder

« Mortality is raised when the time between perforation and surgery increases
Persistence with conservative treatment by using “second line” agents can be hazardous »
EMERGENCY SURGERY

- Mortality rate: 20% Before 1970 < 1% Today

- What caused this reduction in mortality?
  1. Enforcement of OXFORD’S 5-day regime
  2. Change of operative surgery to staged procedures
  3. Possibility of using CyA
ROLE OF CyA IN SEVERE COLITIS

■ ADVANTAGES

✓ Can be used in cases refractory to steroids
✓ Remission obtained in 50-75% of patients with first attack
✓ Can be used as a bridge to elective surgery

■ DISADVANTAGES

✓ Toxicity
✓ Long-term results disappointing
✓ AZT ?
PREFERRED SURGICAL PROCEDURES IN EMERGENCY SURGERY

- **Subtotal colectomy and mucus fistula or Hartmann**
  1. Lower morbidity and mortality
  2. Leaves open all options for future operations

- In a few selected cases IPAA

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**Diagram:**
- **Subtotal Colectomy and Mucus Fistula or Hartmann**
  - IPAA
  - IRA
  - Staged Proctocolectomy
INDICATIONS FOR ELECTIVE TREATMENT

- Failure of medical treatment
  - Symptoms inadequately controlled in spite of the intensive medical treatment and the QOL is worsening
  - Adequate control of the disease but the risks of chronic therapy may be excessive occurrence of drug-induced complications

- Failure to thrive in children

- Malignant transformation
  1. Carcinoma
  2. Dysplasia (HGD, LGD)
  3. DALM
Conservative Treatment in Chronic Disease

AZT or 6-MP is back bone of treatment

- Is safer and better tolerated than steroids
- Should not be used in young patients who are candidates for surgery
- Also in patients unreliable to return for periodic monitoring
- Not effective in all patients
- They have significant side effects – Lymphoma ???
- Relapse of UC if AZT is stopped
- AZT for how long?
Refractory Ulcerative Colitis

“Surgery should not be put off as a last resort but should be part of overall treatment plan”
Cancer risk factors

- Extend of disease
- Duration
- Family history of colorectal Ca
- P.S. Cholangitis
- Deficiency of Folic Acid
Prevention of Ca in UC

- Colonoscopy every one or two years
- Early detection of dysplasia
  - LGD
  - HGD
  - DALM
- Detection of adenomatous polyps
- LGD in symptomatic stricture or impassable by colonoscopy
- Protective role of 5-ASA, 6-MP, Folic Acid
OPERATIONS IN ELECTIVE CASES OF UC

PROCTOCOLECTOMY AND ILEOSTOMY

SPHINCTER-SAVING PROCEDURES

KOCK ILEOSTOMY

IPAA

IRA

BROOKE ILEOSTOMY

DOUBLE STAPLING

MUCOSECTOMY
# Ileal Pouch Anal Anastomosis (IPAA)

## Complications

- **Mortality**: 1%
- **Morbidity**: 13-58%

## Intestinal obstruction (10-22%)
- Pelvic sepsis (5-17%)
- Stenosis (4-16%)
- Fistula (5-10%)
- Pouchitis (7-46%)

## Complications related to ileostomy

**Failure**: 5%
Ileal Pouch Anal Anastomosis (IPAA)

Complications related to pouch:
- Soft strictures: common
  - Prevention (mild dilatation)

Stricture:
- Significant stenosis: 4-16%
  - Dilatation under general anesthesia (60%)
  - Major operation rarely needed
Ileal Pouch Anal Anastomosis (IPAA)

Complications related to pouch:
- Sepsis
- Pelvic Sepsis (5-6%)
- Pelvic collection (6%)

Conservative treatment:
- Pouch preserve 92%

Reoperation:
- Pouch excision: 41%
- Satisfactory function: 29%
POUCH DYSFUNCTION

Without pouchitis

- Small bowel dysfunction
- Problems at the pouch
- Problems at the exit of the pouch

Pouchitis

- Distinctive clinical syndrome (clinical endoscopic and pathology findings)
- 35-50% of patients with IPAA will have at least one episode of pouchitis in the first 10 years after the operation
- Every effort must be made for a conservative treatment, based on antibiotics, and topical agents
Treatment of pouchitis

- **Antibiotics**
  - Metronidazole
  - Ciprofloxacin
  - Clarithromycin
  - etc

- **Enemas**
  - Budesonide
  - Metronidazole
  - 5-ASA
  - Short chain fatty acids

- **Novel treatments**
  - Bismuth
  - Probiotics (VSL # 3)
  - Prebiotics
  - Anti-TNF
## Pouchitis: Response to Treatment

<table>
<thead>
<tr>
<th>Type of treatment</th>
<th>% patients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conservative treatment</strong></td>
<td></td>
</tr>
<tr>
<td>Response to single therapeutic scheme</td>
<td>60</td>
</tr>
<tr>
<td>Response to repetitive schemes</td>
<td>30</td>
</tr>
<tr>
<td>Continuous treatment</td>
<td>8</td>
</tr>
<tr>
<td><strong>Surgical treatment</strong></td>
<td></td>
</tr>
<tr>
<td>Diversion ileostomy</td>
<td>1</td>
</tr>
<tr>
<td>Excision of pouch</td>
<td>1</td>
</tr>
</tbody>
</table>
### Quality of Life, Overall Satisfaction, and Adjustment After IPAA

#### Quality of Life

<table>
<thead>
<tr>
<th>Time Period (mo) (n)</th>
<th>Much Better (% patients)</th>
<th>Better (% patients)</th>
<th>Same (% patients)</th>
<th>Worse/Much Worse (% patients)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 (253)</td>
<td>46.6</td>
<td>34.4</td>
<td>13.0</td>
<td>5.9</td>
</tr>
<tr>
<td>6 (237)</td>
<td>50.2</td>
<td>28.7</td>
<td>15.6</td>
<td>5.5</td>
</tr>
<tr>
<td>12 (210)</td>
<td>59.0</td>
<td>22.9</td>
<td>12.4</td>
<td>5.7</td>
</tr>
<tr>
<td>60 (86)</td>
<td>52.3</td>
<td>29.1</td>
<td>15.1</td>
<td>3.5</td>
</tr>
</tbody>
</table>

#### Overall Satisfaction

<table>
<thead>
<tr>
<th>Time Period (mo) (n)</th>
<th>Excellent (% patients)</th>
<th>Good (% patients)</th>
<th>Fair (% patients)</th>
<th>Poor (% patients)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 (252)</td>
<td>67.9</td>
<td>23.8</td>
<td>8.3</td>
<td>0</td>
</tr>
<tr>
<td>6 (219)</td>
<td>72.1</td>
<td>20.6</td>
<td>5.9</td>
<td>1.4</td>
</tr>
<tr>
<td>12 (192)</td>
<td>78.6</td>
<td>19.3</td>
<td>2.1</td>
<td>0</td>
</tr>
<tr>
<td>60 (81)</td>
<td>74.1</td>
<td>22.2</td>
<td>3.7</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Overall Adjustment

<table>
<thead>
<tr>
<th>Time Period (mo) (n)</th>
<th>Excellent (% patients)</th>
<th>Good (% patients)</th>
<th>Fair (% patients)</th>
<th>Poor (% patients)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 (248)</td>
<td>47.6</td>
<td>43.1</td>
<td>7.7</td>
<td>1.6</td>
</tr>
<tr>
<td>6 (217)</td>
<td>59.0</td>
<td>32.3</td>
<td>6.9</td>
<td>1.8</td>
</tr>
<tr>
<td>12 (189)</td>
<td>64.0</td>
<td>31.8</td>
<td>4.2</td>
<td>0</td>
</tr>
<tr>
<td>60 (80)</td>
<td>71.2</td>
<td>26.3</td>
<td>2.5</td>
<td>0</td>
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</tbody>
</table>
Ulcerative Colitis
Experience of 1st Surgical Department of “EVAGGELI SMOS” General Hospital
Ileal Pouch Anal Anastomosis
EXPERIENCE OF A SINGLE SURGEON

- **Period**: 1983-2006
- **Operations**: 463
- **Male**: 217
- **Female**: 246
- **Age**: 12-82 y
**ULCERATIVE COLITIS - OPERATIONS**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proctocolectomy - permanent ileostomy</td>
<td>14</td>
</tr>
<tr>
<td>Subtotal colectomy - ileoanal anastomosis</td>
<td>14</td>
</tr>
<tr>
<td>Subtotal colectomy + mucous fistula</td>
<td>16</td>
</tr>
<tr>
<td>Total colectomy + mucosectomy - ileal pouch anal anal anastomosis</td>
<td>463</td>
</tr>
</tbody>
</table>

**Total: 507**
Ulcerative Colitis – Redo operations

- Conversion IRA to IPAA: 3
- Pouch Failure => excision and reconstruction of IPAA: 8
CONCLUSION

Surgery is not a defeat of Medicine, is an alternative treatment modality still very valid. The question is to decide which treatment will give the patient the optimal QOL? Difficult to answer

However modern surgery offers a definite treatment for UC and the price of loosing the colon is in most patients easy to overcome.