Current Therapy for IBD

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Current Therapy for IBD

– Over-the-counter medications
– Prescription medications
– Surgery
– Complementary and alternative therapies (CAM)
– Dietary therapy

Comprehensive IBD Management

IBD Management Goals

Minimize treatment toxicity
Control symptoms
Achieve mucosal healing
Maintain remission
Provide emotional support
Prevent cancer
Improve quality of life
Ensure adequate nutrition

Treat inflammation

Treatment Strategy

“Top-down” Strategy

• Early use of biologic as initial treatment
• Induces rapid clinical response
• May enhance quality of life

“Bottom-up” Strategy

• Standard, sequential treatment for remission and maintenance
• Cost-effective
• Minimal side effects

Early, Consistent Treatment = Increased Chance of Staying Well

The IBD “Medicine Cabinet”
Over-The-Counter (OTC) Medications

– Address symptoms only
  • Anti-diarrheal agents
  • Laxatives
  • Pain Relievers
– NSAIDs may cause or worsen GI irritation
– Important: talk with your physician before taking any OTC or herbal medications

Antibiotics

Benefits
– Effective in pouchitis, perianal fistulas, abscesses, and in some patients with CD

Risks
– Bacterial resistance
– Associated with flares
– Side effects include abdominal cramping, Clostridium Difficile, and diarrhea

Antibiotics (cont)

– Ciprofloxacin (Cipro®, Proquin®)
– Metronidazole (Flagyl®)
– Rifaximin (Xifaxan)

Aminosalicylates (ASAs)

Benefits
– Use in preventing relapses and maintaining remission
– Generally well-tolerated
– Formulated to release medication to specific areas of the bowel
– Most effective in treating UC, but weak treatment for Crohn’s disease

Risks
– Can exacerbate diarrhea
– Very small risk of interstitial nephritis

Aminosalicylates (ASAs) (cont)

– Balsalazide (GIAZO®, Colazal®)
– Mesalamine formulations
  • Delayed/Extended release tablets (Lidtã®, Asacol HD®, Apriso™, DeCicola®)
  • Controlled release tablets (Pentasa®)
  • Rectal suspension (Rowasa®)
  • Rectal suppository (Canasa®)
– Olsalazine (Dipentum®)
– Sulfasalazine (Azulfidine®)

Corticosteroids

Benefits
– Initially effective in inducing but not maintaining remission

Risks
– Numerous, including
  • Infection
  • Psychosocial impact: sleep disturbance, mood swings
  • Neurological changes
  • Physical appearance: weight gain, skin fragility
  • Growth delays and bone loss
  • Increased blood sugar
  • Avascular necrosis of bone
Corticosteroids (cont)
- Budesonide (Entocort®, UCERIS®)
- Methylprednisolone (Medrol®)
- Prednisone (Deltasone®)
- Prednisolone

Over-the-Counter

Immunomodulators (6MP, Azathioprine)
- Suppress the immune system
- Steroid-sparing agents, used in maintenance
- Usually taken along with another medication to get patients into remission
- May take 3-6 months for full effect
- Use to suppress antibodies to biologics
- Blood tests every 3 months

Over-the-Counter

Risks
- Early reactions: fever, pancreatitis
- Adverse events: low white blood cells, elevated liver tests, infection, lymphoma

Immunomodulators (cont)
- Azathioprine (Imuran®, Azasan®)
- 6-Mercaptopurine (Purinethol®)
- Cyclosporine (Neoral®)
- Methotrexate
- Tacrolimus (Prograf®)

Over-the-Counter

Biologics

Immunomodulators

Biologics

Biologics (cont)

Anti-TNF
- Adalimumab (Humira®)
- Certolizumab pegol (Cimzia®)
- Infliximab (Remicade®)
- Golimumab (Simponi®)

Integrin Antagonist Receptors
- Natalizumab (Tysabri®)
- Vedolizumab (Entyvio™)

Over-the-Counter

Risks of Anti-TNFs and Immunomodulators

If 10,000 patients were treated for 1 year

<table>
<thead>
<tr>
<th>Event</th>
<th>Estimated Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHL (baseline)</td>
<td>2/10,000</td>
</tr>
<tr>
<td>NHL (on IMs)</td>
<td>4-9/10,000</td>
</tr>
<tr>
<td>NHL (on anti-TNF with prior IMs)</td>
<td>4-9/10,000</td>
</tr>
<tr>
<td>Hepatosplenic T-cell lymphoma</td>
<td>Unknown</td>
</tr>
<tr>
<td>Death from sepsis (lower for younger patients)</td>
<td>4/1,000</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>5/10,000</td>
</tr>
</tbody>
</table>

Anti-TNF, anti-tumor necrosis factor; IMs, immunomodulators; NHL, non-Hodgkin lymphoma.
Table adapted from Siegel CA. In Inflammatory Bowel Disease: Translating Basic Science Into Clinical Practice. Wiley, 2010.
Chance of Needing Surgery

Crohn’s Disease: 66%–75%
Ulcerative Colitis: 25%–40%

Elective and Emergency Surgery

<table>
<thead>
<tr>
<th>Crohn’s Disease</th>
<th>Ulcerative Colitis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elective</strong></td>
<td>• Excessive bleeding in the intestine</td>
</tr>
<tr>
<td></td>
<td>• Formation of a fistula or abscess</td>
</tr>
<tr>
<td></td>
<td>• Failure of medication to control disease</td>
</tr>
<tr>
<td></td>
<td>• Dysplasia</td>
</tr>
<tr>
<td></td>
<td>• Stricture</td>
</tr>
<tr>
<td><strong>Emergency</strong></td>
<td>• Perforation of the bowel</td>
</tr>
<tr>
<td></td>
<td>• Intestinal obstruction or blockage</td>
</tr>
</tbody>
</table>

Types of Surgery in IBD

<table>
<thead>
<tr>
<th>Crohn’s Disease</th>
<th>Ulcerative Colitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Strictureplasty</td>
<td>• Proctocolectomy (removal of the colon and rectum)</td>
</tr>
<tr>
<td>• Resection of small intestinal segment</td>
<td>• With ileostomy</td>
</tr>
<tr>
<td>• Colectomy (partial or complete)</td>
<td>• Restorative (ileoanal or J pouch)</td>
</tr>
<tr>
<td>• Protocolectomy</td>
<td>• Disease is “cured” once the colon is removed</td>
</tr>
<tr>
<td>• Diverting colostomy or ileostomy</td>
<td>• Unlike UC, CD cannot be cured with surgery</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crohn’s Disease</th>
<th>Ulcerative Colitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Complications, as with any surgery</td>
<td>• Complications, as with any surgery</td>
</tr>
<tr>
<td>• Recurrence of symptomatic disease</td>
<td>• Potential complications specific to IPAA include:</td>
</tr>
<tr>
<td>• Psychological implications for those with a stoma</td>
<td>– Pouchitis</td>
</tr>
<tr>
<td></td>
<td>– Small bowel obstruction</td>
</tr>
<tr>
<td></td>
<td>– Pouch failure (8%–10% of patients)</td>
</tr>
<tr>
<td></td>
<td>– Difficulty getting pregnant</td>
</tr>
<tr>
<td></td>
<td>• Psychological implications for those with ileostomy</td>
</tr>
</tbody>
</table>

Complementary and Alternative Medicine (CAM)

- Probiotics
- Herbal supplements
- Dietary therapy

Probiotics and IBD

- "Good" bacteria that restore balance to the enteric microbiota-bacteria in the intestines
- Limited studies on effectiveness: shown to prevent and treat pouchitis, improve UC at high doses, prevent relapses of C. Diff and prevent antibiotic associated diarrhea.
- Various strains
  - VSL#3®, *Escherichia coli* Nissle 1917 (Mutaflor®), *Lactobacillus acidophilus* (Flora-Q®)
- Important to discuss with physician before initiating treatment
Herbal Supplements

- Not enough large randomized controlled studies with good endpoints to recommend at this time
- Most studies include small numbers of patients and endpoints do not include mucosal healing

- Aloe vera
- Boswellia serrata
- Jian Pi Ling
- Fish oil
- Plantago ovata
- Curcumin
- Wormwood
- Primrose oil
- Wheat grass juice

Dietary Therapy

- Elemental or semi-elemental diets can achieve mucosal healing in small bowel Crohn's disease (Not effective for UC)
- Not palatable
- Relapse when normal food is introduced
- High cost
- Loss of gut microbiome diversity

Dietary Therapy

- High animal protein diets associated with development of IBD
- SCD (Specific carbohydrate diet), Paleo diet
  - No data
- FODMAP diet (Fermentable Oligo- Di-and Monosaccharides and Polyols)
  - Decreased bloating, pain, diarrhea
  - No data for mucosal healing
  - May be treating IBS symptoms
  - Recent Wall Street journal article on IBS
  - May decrease diversity of gut microbiome

Diet During a Flare

- A low-residue diet often prescribed
- Keep hydrated
- Eat smaller, more frequent meals
- Add nutrition supplements if appetite is poor
- Keep food diary: www.ccfacomunity.org/ResourceCenter.aspx

<table>
<thead>
<tr>
<th>Low-Residue Foods</th>
<th></th>
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<tbody>
<tr>
<td>Grains</td>
<td>Fruits</td>
</tr>
<tr>
<td>Plain cereals</td>
<td>Fruit juices (except prune)</td>
</tr>
<tr>
<td>White rice</td>
<td>Apple sauce</td>
</tr>
<tr>
<td>Refined pasta</td>
<td>Bananas</td>
</tr>
<tr>
<td>Avoid whole grains</td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>Meat and protein</td>
</tr>
<tr>
<td>Potatoes (no skin)</td>
<td>Well cooked</td>
</tr>
<tr>
<td>Well cooked</td>
<td>Avoid beans, nuts, seeds</td>
</tr>
<tr>
<td>Dairy</td>
<td></td>
</tr>
<tr>
<td>As tolerated or additional sources</td>
<td></td>
</tr>
</tbody>
</table>

“Drugs don’t work in patients who don’t take them” — C. Everett Koop, MD

Adherence generally associated with improved outcomes
- Decreased risk of disease progression
- Reduced inflammation and increased healing of GI lining
- Decreased risk of colorectal cancer
- Evidence demonstrates patients who continue their maintenance medications are less likely to experience flares

To Increase Treatment Adherence

- Remain informed and educated
- Continue taking the medications
- Find support for emotional and social issues
  - CCFA support groups, Community site: www.ccfacomunity.org
  - Medical social workers
  - Religious leaders
Current Therapy for IBD: Key Points

- Mucosal healing is the gold standard goal of treatment
- Prescription medications can achieve mucosal healing and improved overall outcomes
  - There are some very serious, but very rare side effects associated with some of these medications
  - If you need the medication, the benefits most likely outweigh the risks
  - Adherence is importance in maintaining remission
- CAM treatments currently have minimal data and should be discussed thoroughly with your provider
  - Always tell your doctor everything you are taking
  - Clearly understand the pros and cons so that you can make a decision that is right for you

Contributors

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References and Resources

References
CCFA website: www.ccfa.org/info/treatment
National Center for Complementary and Alternative Medicine:
http://nccam.nih.gov
Regueiro MD. Managing IBD: Taking Charge of Your Disease webcast:
http://programs.mei.com/CCFAmanageIBDVL/
Siegel CA. Balancing the Risks and Benefits of Treatment webcast:
http://programs.mei.com/CCFA139VL/

Additional Resources
Treatment and Self-Management: http://www.ibdetermined.org/
Community Site: http://www.ccfa.org
Information Resource Center: 888.694.8872 or info@ccfa.org

Question and Answer Session