

## **Aminosalicylate (5-ASA) and IBD**

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There is presently no cure for Inflammatory Bowel Disease (IBD). Until there is a cure, medications will be needed to control the inflammation, by acting on the parts of the inflammatory cascade.

### **Ideal Medication:**

- Effective, safe, simple to use and affordable
- Would induce remission
- Improve quality of life

### **No one Ideal therapy:**

- Treatment tailored to patient
- Treatment depends on disease location
- Treatment may change over time
- Disease may change in severity
- Patient's needs may change
- There is no crystal ball; at time of diagnosis it is hard to predict how mild or aggressive the disease will be.

### **Mild to moderate presentation at diagnosis:**

Usually start with Aminosalicylate (5-aminosalicylate or 5ASA) such as Sulfasalazine (Azulfadine®). These were the first class of drugs shown to be effective in IBD

- Sulfasalazine (Azulfadine®)
- Anti-inflammatory properties
- 5ASA is bonded to sulfapyridine via an azo-bond. This bond protects the drug from being absorbed in the stomach and small intestine (only 10%) and allows it to be delivered intact to the site of inflammation in the intestines
- Most of the drug is delivered intact to the distal small bowel (terminal ileum) and the colon
- The sulfasalazine is metabolized in distal small bowel and colon by anaerobic bacteria which cleave the azo-bond
- The Sulfapyridine is absorbed into the circulation and further metabolized by the liver. This is responsible for most of the side effects

### **Adverse Effects:**

15% of Patients on Sulfasalazine experience at least one side effect

### **Common Adverse Effects:**

Nausea, vomiting, anorexia (poor appetite), headache, myalgia (muscle pain)  
Usually controlled by taking with food or using coated pills

**More Serious Adverse Effects:**

- Hypersensitivity reaction: fever, rash, pleurisy, pericarditis, arthritis, pancreatitis; generally reversible, usually requires discontinuation of the drug
- Megaloblastic anemia due to interference with folate absorption; can be corrected by giving additional folate
- Oligospermia (low sperm count); reversible upon discontinuation of the drug

**Other 5-ASA Drugs**

- Mesalamine: Asacol<sup>®</sup>, Pentasa<sup>®</sup>, Rowasa<sup>®</sup>
- Asacol<sup>®</sup>: pH dependant, effective in distal ileum, colon
- Pentasa<sup>®</sup>: slow gradual release throughout GI tract; effective in duodenum, jejunum, ileum
- Balsalazide: Colazal<sup>®</sup>; cleaved to Mesalamine by colonic bacteria; effective in colon
- Olsalazine: Dipentum<sup>®</sup>

**Rectal Medications** (Mesalamine applied directly to the colon)

- Canasa<sup>®</sup> - suppository, useful for rectal involvement
- Rowasa<sup>®</sup> - useful for left side of colon

**Side Effects:**

Diarrhea, pancreatitis, hepatitis (↑LFT's)  
Bone marrow suppression (rare)  
Nephrotoxicity (rare)

**Which 5-ASA do we choose?**

- Disease location
- Can the child swallow pills?
- How sick is the child?
- Any allergies?
- Any extra-intestinal manifestations of IBD?