IRRITABLE BOWEL SYNDROME

DEFINITION:
*FUNCTIONAL GASTROINTESTINAL DISORDER CHARACTERIZED AS: ABDOMINAL PAIN AND DISCOMFORT THAT OCCURS IN ASSOCIATION WITH ALTERED BOWEL HABITS FOR AT LEAST 3 MONTHS IN THE ABSENCE OF AN ORGANIC PATHOLOGY

ROME 111 CRITERIA FOR THE DIAGNOSIS OF THE IBS:
PATIENT MUST HAVE HAD RECURRENT ABDOMINAL PAIN OR DISCOMFORT AT LEAST 3 DAYS PER MONTH DURING THE PREVIOUS 3 MONTHS THAT IS ASSOCIATED WITH 2 OR MORE OF:
*RELIEVED BY DEFECATION
*ONSET ASSOCIATED WITH A CHANGE IN STOOL FREQUENCY
*ONSET ASSOCIATED WITH A CHANGE IN STOOL FORM OR APPEARANCE

SUPPORTING SYMPTOMS:
*ALTERED STOOL FREQUENCY
*ALTERED STOOL FORM
*ALTERED STOOL PASSAGE
*MUCUS PER RECTUM
*ABDOMINAL BLOATING

PATHOGENESIS:
DYSFUNCTION OF THE BRAIN-GUT AXIS:
*PERIPHERAL VISCERAL HYPERSENSITIVITY
*SPINAL HYPEREXCITABILITY
*CENTRAL MALADAPTIVE PROCESSING OF VISCERAL PAIN INPUT

HISTORY:

SYMPTOMS OF IBS:
*DIARRHEA, CONSTIPATION OR ALTERNATING DIARRHEA AND CONSTIPATION
*ASSOCIATED GAS AND BLOATING
*ABDOMINAL PAIN THAT IS PREDOMINANTLY LLQ BUT CAN BE LOCATED ANYWHERE IN THE ABDOMEN (CAN MIMIC BILIARY TRACT DISEASE WITH PAIN IN THE RUQ, CAN BE IN THE LOWER ABDOMEN AND MIMIC PELVIC DISEASE)
*PAIN IS OFTEN DIFFUSE
*PAIN RADIATES ACROSS QUADRANTS
*PAIN IS INFLUENCED BY HAVING A BM
SYMPTOMS NOT TYPICAL OF THE IBS:
* ANOREXIA, WEIGHT LOSS
* NAUSEA, VOMITING
* HEMATEMESIS, MELENA
* RECTAL BLEEDING UNLESS IT IS ASSOCIATED PERIANAL IN ORIGIN
* NOCTURNAL SYMPTOMS
* ACUTE ONSET OF SYMPTOMS
* ONSET WITH NO OBVIOUS PRECIPITATING FACTOR

HISTORY OF INCITING EVENT:
* INITIAL INFECTION THAT CAN LEAD TO A POST-DYSENTERIC IBS
* STRESSFUL EVENT
* CHANGE IN DIET
* NEW MEDICATION
* SURGICAL HISTORY

OVERLAP WITH OTHER GI DISORDERS:
* GERD
* NONCARDIAC CHEST PAIN
* FUNCTIONAL DYSEPSIA

OVERLAP WITH NONGASTROINTESTINAL DISORDERS:
* FIBROMYALGIA
* DYSMENORRHEA
* DYSPAREUNIA
* URINARY FREQUENCY

ASSOCIATED SOMATIC COMPLAINTS:
* HEADACHES
* SLEEP DISORDER
* FATIGUE

SUBTYPES OF IBS:
1) IBS-C (CONSTIPATION DOMINANT)
2) IBS-D (DIARRHEA DOMINANT)
3) MIXED (MIXED DIARRHEA AND CONSTIPATION)
4) IBS-A (ALTERNATING DIARRHEA AND CONSTIPATION)

LABORATORY INVESTIGATION:
* ROUTINE DIAGNOSTIC TESTING (CBC, SERUM CHEMISTRIES)
* IF CONSTIPATED ALSO OBTAIN TSH, CALCIUM, ALBUMIN
* IF DIARRHEA ALSO OBTAIN A CRP, ALBUMIN
* CELIAC SEROLOGY SHOULD BE OBTAINED IN ALL PATIENTS WITH GI SYMPTOMS
RADIOLOGICAL INVESTIGATIONS:
*RADIOGRAPHIC TESTING IS NOT INDICATED IN PATIENTS WITH TYPICAL CHRONIC IBS SYMPTOMS AND NO ALARM FEATURES
*IF NECESSARY ENDOSCOPIC PROCEDURES ARE PREFERRED TO RADIOLOGICAL EVALUATION OF THE COLON

COLONOSCOPY INDICATIONS:
*NEW ONSET CONSTIPATION OR DIARRHEA WITH NO OBVIOUS PRECIPITATING FACTOR
*ASSOCIATED ANOREXIA, WEIGHT LOSS
*NEW ONSET RECTAL BLEEDING
*IRON DEFICIENCY ANEMIA
*GREATER SUSPICION IN A PATIENT OLDER THAN 50
*GREATER SUSPICION IN A PATIENT WITH A FAMILY HISTORY OF COLON CANCER, INFLAMMATORY BOWEL DISEASE

*A PATIENT WITH A CHRONIC HISTORY OF IBS - CONSTIPATION / IBS – DIARRHEA AND NO ALARM FEATURES DOES NOT REQUIRE A COLONOSCOPY FOR THEIR IBS

TREATMENT STRATEGIES FOR IBS:

DIETARY TRIALS: (REFER TO GAS AND BLOATING SECTION)

PREVALENCE OF FOOD ALLERGIES IS 1-3% IN ADULTS
IBS SYMPTOMS ARE RARELY SECONDARY TO FOOD ALLERGIES BUT REFLECT FOOD INTOLERANCES

1) EXCLUSION DIET:
NO OBJECTIVE EVIDENCE THAT THIS IS EFFECTIVE IN IBS BUT PATIENTS MAY OFTEN IDENTIFY AN OFFENDING FOOD PRODUCT

SEQUENTIAL 2 WEEK DIETARY ELIMINATION TRIALS OF SUCH GAS PRODUCING FOODS AS:
*LACTOSE
*WHOLE GRAINS
*BEANS /LEGUMES
*FRUCTOSE PRODUCTS
*BRASSICA CONTAINING FOODS
*ARTIFICIAL SWEETENERS
*CAFFEINE
*ALCOHOL

NONCELIAC GLUTEN SENSITIVITY:
*COMMON DISORDER
*PATIENTS ARE INTOLERANT TO GLUTEN
*CELIAC SEROLOGY IS NEGATIVE
*PATIENTS SHOULD AVOID GLUTEN AS NEEDED
*PATIENTS DO NOT HAVE ANY MALABSORPTIVE ISSUES
2) **FODMAP DIET:**
Has been demonstrated to be effective in IBS

- **F** - fermentable
- **O** - oligosaccharide
- **D** - disaccharide
- **M** - monosaccharide
- **P** - polyols

**GLOBAL ELIMINATION OF FODMAPS:**
- *fructose*
- *lactose*
- *fructans*
- *galactans*
- *polyols*

Referral to a dietitian is important for management of this diet.

**DIETARY FIBRE AND BULKING AGENTS**
- *Soluble fibre (psyllium)* is moderately effective
  - metamucil 1 dose a day, all-bran buds 1/3 cup od
- *Insoluble fibre (wheat or corn bran)* is not effective

**LAXATIVES**
- *Laxatives improve stool frequency but not abdominal pain*

**ANTISPASMODICS** provide short term relief of abdominal pain
- *Pinaverium - dicetel 50 mg po tid for a 4 week trial. If not effective can increase to 100 mg po tid*
- *Hyoscine – buscopan 10 mg po qid prn*
- *Dicyclomine – bentylol 20 mg po qid*
- *Trimebutine - modulon 200 mg po tid did not have a significant benefit*

**PEPPERMINT OIL** is superior to placebo in relieving IBS symptoms
- *Peppermint oil – 0.2 – 0.4 ml po tid*

**ANTIDIARRHEALS:**
- *Loperamide – lomotil does not relieve global symptoms of IBS but is effective for treatment of diarrhea*

**PROBIOTICS:** Some efficacy for these preparations in improving global symptoms, bloating and flatulence
DIFFICULT TO RECOMMEND A SPECIFIC PROBIOTIC DUE TO LACK OF COMPARATIVE STUDIES ALTHOUGH THERE IS SOME EVIDENCE FOR ALIGN AND ACTIVA
*ALIGN 1 CAPSULE PO OD (BIFIDOBACTERIUM INFANTIS)
*ACTIVIA BID (BIFADOBACTERIUM LACTIS – DN) MAY BE OF VALUE IN IBS-C

ANTIBIOITICS
SMALL BOWEL BACTERIAL OVERGROWTH HAS BEEN SUGGESTIVE AS A MECHANISM FOR BLOATING AND GASEOUS DISTENTION IN IBS-D
*NONABSORBABLE ANTIBIOTIC RIFAXIMIN 550 MG PO TID FOR 14 DAYS HAS BEEN DEMONSTRATED TO BE OF VALUE IN REDUCING GLOBAL IBS SYMPTOMS AND BLOATING IN IBS-D (PRESENTLY AVAILABLE IN CANADA FOR TREATMENT OF PREVENTION OF HEPATIC ENCEPHALOPATHY)

SEROTONERGIC AGENT
* PRUCALOPRIDE (RESOTRON 2 MG PO OD) SELECTIVE 5-HT4 AGONIST EFFECTIVE FOR CHRONIC IDIOPATHIC CONSTIPATION IN WOMAN BUT NO DATA OF ITS VALUE IN IBS

PROSECRETORY AGENT
* LINACLOTIDE (CONSTELLA) GUANYLATE CYCLASE-C AGONISTS EFFECTIVE IN TREATING CONSTIPATION AND PAIN IN IBS AND IDIOPATHIC CONSTIPATION

IBS-C 290 MCG ONCE A DAY 30 MINUTES BEFORE BREAKFAST
CHRONIC CONSTIPATION 145 MCG ONCE A DAY 30 MINUTES BEFORE BREAKFAST

PSYCHOPHARMACOLOGICAL AGENTS:
INDICATED FOR MODERATE TO SEVERE IBS NOT RESPONDING TO CONSERVATIVE TREATMENT

1) TRICYCLIC ANTIDEPRESSANTS (TCA):
*DEMONSTRATED TO BE OF VALUE FOR PAIN RELIEF IN IBS
*INHIBITION OF NOREPINEPHRINE AND SEROTONIN REUPTAKE
*PROBLEM OF ANTI-HISTAMINIC AND ANTI-CHOLINERGIC EFFECTS (CONSTIPATION)
*USED AS LOW NONPSYCHIATRIC DOSE TO INFLUENCE CENTRAL SENSITIZATION
*INDICATED FOR NONCONSTIPATED IBS PATIENT

DESIPRAMINE (NORPRAMIN) 25-150 MG TOTAL DOSE DAILY
DESIPRAMINE 25 MG QHS INCREASING BY 25 MG EVERY 5 DAYS UNTIL AT 150 MG QHS

NORTRIPTYLINE (AVENTYL) 25-150 MG TOTAL DOSE DAILY

*DESIPRAMINE AND NORTRIPTYLINE HAVE LESS ANTIHISTAMINIC AND ANTICHOLINERGIC EFFECTS. BETTER TOLERATED THAN AMITRIPTYLINE AND IMIPRAMINE

AMITRIPTYLINE (ELAVIL) 25-150 MG TOTAL DOSE DAILY
2) SELECTIVE SEROTONIN REUPTAKE INHIBITORS:
*MODEST BUT SIGNIFICANT EFFECT ON GLOBAL WELL BEING AND ANXIETY SPECIFIC GI SYMPTOMS
*SUBSTANTIAL EFFECT ON ASSOCIATED ANXIETY AND DEPRESSION
*MAY AUGMENT ANALGESIC EFFECTS OF OTHER DRUGS
*LESS ANALGESIC PROPERTIES AS DO NOT INHIBIT NOREPINEPHRINE UPTAKE

*INDICATED AS ADDITIONAL THERAPY FOR IBS CONSTIPATION WITH PROMINENT ANXIETY NOT RESPONDING TO TCA OR NSRI

PAROXETINE (PAXIL) 20-60 MG TOTAL DOSE DAILY
ESCITALOPRAM (CIPRALEX) 10-20 MG TOTAL DOSE DAILY

3) SEROTONIN-NOREPHINEPHRINE REUPTAKE INHIBITORS
*MORE POTENT ANALGESIC THAN SSRI AS THEY HAVE NORADRENERGIC EFFECTS
*LESS ANTICHOLINERGIC AND SEDATING PROPERTIES THAN TCA
*DUAL ANALGESIC AND ANTIDEPRESSANT EFFECT
*INDICATED FOR CONSTIPATED IBS PATIENT

DULOXETINE (CYMBALTA) 20-80 MG TOTAL DOSE DAILY
VENLAFAXINE (EFFEXOR) 25-300 MG TOTAL DOSE DAILY

4) ATYPICAL ANTIPSYCHOTICS:
*REduce ANXIETY, RESTORE NORMAL SLEEP PATTERNS AND DIRECT ANALGESIC EFFECT

QUIETIAPINE (SEROQUEL) 25-100 MG OD TOTAL DOSE DAILY

*AUGMENT ANALGESIC EFFECTS OF TCA AND SNRI'S WHEN PAIN IS NOT ADQUATELY CONTROLLED

SUMMARY OF PSYCHOTROPIC AGENTS
*NON-CONSTIPATED IBS WITH PREDOMINANT PAIN USE TCA (DESIPRAMINE)
*CONSTIPATED IBS WITH ANXIETY OR DEPRESSION USE NSRI (CYMBALTA)
*SSRI AS AUGMENTING AGENT IN COMBINATION WITH SNRI OR TCA ESPECIALLY IF THERE IS ASSOCIATED SIGNIFICANT ANXIETY
*AUGMENTATION THERAPY BY ADDING LOW DOSE TCA TO SNRI OR SNRI TO TCA
*ATYPICAL ANTIPSYCHOTICS (SEROQUEL) FOR SEVERE REFRACTORY IBS TO COMBINATION THERAPY WITH SSRI OR SNRI WITH TCA

PSYCHOLOGICAL INTERVENTIONS ARE EFFECTIVE IN IMPROVING IBS SYMPTOMS
*COGNITIVE BEHAVIORAL THERAPY
*DYNAMIC PSYCHOTHERAPY
*HYPNOTHERAPY
*MINDFULNESS BASED STRESS REDUCTION
SUMMARY OF APPROACH FOR TREATMENT:

**IBS –C (CONSTIPATION DOMINANT):**
(REFER TO THE CONSTIPATION AND GAS / BLOATING DOCUMENT)

1) TREATMENT FOR THE CONSTIPATION:
*HIGH FIBRE DIET (5 FRUITS AND VEGETABLES A DAY, ALL-BRAN BUDS 1/3 CUP OD)

(SEQUENTIAL 2 WEEK TRIALS OF)
*PSYLLIUM (METAMUCIL 1 TBS OD)
*PEG (LAXADAY, RESTORALAX) 17 GRAMS PO OD OR LACTULOSE 1-3 TBS OD
*DULCOLAX 5-10 MG PO OD OR SENNA 2 TABLETS OD
*RESOTRAN 2 MG PO OD OR CONSTELLA 145-290 MCG OD AS A 4 WEEK TRIAL

IF STILL SYMPTOMATIC CONSIDER:
2) SEQUENTIAL 2 WEEK DIETARY ELIMINATION TRIALS OR FODMAP DIET
3) ALIGN 1 CAPSULE PO OD
4) 4 WEEK TRIAL OF DICETEL 50 MG PO TID
5) PSYCHOTROPIC DRUG
6) PSYCHOLOGICAL INTERVENTIONS IF INDICATED
7) VIEW WEBSITE www.thebreathproject.org FOR STRESS MANAGEMENT TECHNIQUES

**IBS- D (DIARRHEA DOMINANT):**
(REFER TO THE DIARRHEA AND GAS / BLOATING DOCUMENT)

1) TREATMENT FOR THE DIARRHEA:
(SEQUENTIAL 2 WEEK TRIALS OF)
*METAMUCIL 1 TBS OD (METAMUCIL IS A GOOD STOOL REGULATOR AND CAN BE OF VALUE BOTH IN DIARRHEA AND CONSTIPATION OF THE IBS)
*CHOLESTYRAMINE 2-4 GRAMS PO OD (OLESTYR IS AN EFFECTIVE BILE SALT BINDER AND CAN BE OF VALUE IN IDIOPATHIC, POST CHolecystectomy, POST ILEAL RESECTION CHOLERRHEIC OR BILE SALT DIARRHEA)
*IMODIUM, LOMOTIL PRN

IF STILL SYMPTOMATIC CONSIDER:
2) SEQUENTIAL 2 WEEK DIETARY ELIMINATION TRIALS OR FODMAP DIET
3) ALIGN 1 CAPSULE PO OD
4) 4 WEEK TRIAL OF DICETEL 50 MG PO TID
5) PSYCHOTROPIC DRUG
6) PSYCHOLOGICAL INTERVENTIONS IF INDICATED
7) VIEW WEBSITE www.thebreathproject.org FOR STRESS MANAGEMENT TECHNIQUES
STRESS:

HISTORY
* PATIENT CAN OFTEN IDENTIFY A STRESSFUL EVENT LEADING TO THE ONSET OR EXACERBATION OF EXISTING SYMPTOMS
* ALWAYS ASK THE PATIENT WHAT WENT ON PRIOR TO THE ONSET OF THEIR SYMPTOMS
* ASK IF STRESS IS A FACTOR
* IF THEY DENY THAT STRESS IS A ROLE ENQUIRE SPECIFICALLY ABOUT THEIR WORK, FINANCES, FAMILY, PARTNER
* HAVE THEIR PARTNER OR FAMILY MEMBER PRESENT AND ASK THEM IF THEY THINK STRESS IS PLAYING A ROLE
* ENQUIRE IF THE PATIENT HAS EVER BEEN ON ANTIDEPRESSANTS, BEING HOSPITALIZED FOR A PSYCHOLOGICAL DISORDER OR HAD AN EATING DISORDER

REASSURANCE:
* EXPLAIN TO THE PATIENT THAT NO ORGANIC DISEASE IS PRESENT
* THERE IS NO SERIOUS PROBLEM PRESENT
* THIS CONDITION DOES NOT LEAD TO CANCER
* THIS IS A COMMON PROBLEM
* THE SYMPTOMS ARE GENUINE
* STRESS MAY AGGRAVATE THE PROBLEM