IRRITABLE BOWEL SYNDROME

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Definition:

Irritable bowel syndrome (IBS) is characterized by chronic or recurrent abdominal pain or discomfort and an erratic disturbance in defecation. Bloating is also common.

Epidemiology

- Symptoms of IBS are reported by one in six Americans
- The prevalence is greater in women.
- The prevalence is lower in people > 60 years.
- The first manifestation usually occur at 30-50 years.
- 30% of persons become asymptomatic over time.
- Persons who seek care for IBS tend to have
  - More severe abdominal pain
  - A greater frequency and severity of non-GI symptoms

Pathobiology

- Abnormal Motor Function
  - IBS is associated with a generalized disorder of smooth muscle function of GIT,GB, and urinary tract.
  - Abnormal colonic response to meals, drugs, gut hormones , and stress.
- Disturbed Sensation
  - Visceral hypersensitivity is a characteristic finding.
- Infection
  - High rates of bacterial overgrowth in IBS.

Pathobiology

- Inflammation
  - Low-grade colonic inflammation in some patients.
- Central Nervous System
  - A high % of coexisting psychiatric disease.
  - Increased activation of the emotional motor system.
- Serotonin
  - Excess serotonin could induce diarrhea until receptor desensitization occurs, followed by constipation.
- Genetics
  - Gene associations have been reported.
- Diet
  - Food intolerance, Lactase deficiency.
  - No single food group has been implicated.

Clinical Manifestations

- Chronic or recurrent abdominal pain or discomfort.
- The pain is characterized by:
  - commonly occurs in the lower part of the abdomen
  - tends to be variable in quality, severity, and duration.
  - the pain is cramp-like or aching and occurs in episodes.
  - relieved by defecation or associated with a change in stool frequency or consistency.
  - rarely awakens the patient from sleep.
- Pain related to exercise, urination, or menstruation is unlikely to be due to IBS.
- Chronic unremitting pain for more than 6 months unrelated to defecation is never due to IBS.

Clinical Manifestations

- An irregular disturbance in defecation is also a key feature of IBS, and its absence excludes the diagnosis and include;
  - Predominant constipation or
  - Predominant diarrhea or
  - An alternating bowel pattern.
- Bloating is a common symptom in IBS.
  - There may be visible abdominal distention.
  - Sometimes, women complain that they look pregnant.

Clinical Manifestations

- Symptoms of gastro-esophageal reflux are reported by a third of patients with IBS.
- A third of patients also report dyspepsia.
- Nausea, usually without vomiting, is common.
- Fatigue, headache, and back pain are common.
- Transient bowel symptoms should not be confused with IBS;
  - Constipation after surgical procedure.
  - “nervous diarrhea” in patients acute stress

Clinical Manifestations

- Physical examination is useful to exclude organic disease.
- Patients with IBS may have abdominal scars as a result of their higher rates of cholecystectomy, appendectomy, and hysterectomy, in part because of failure to recognize the condition.
- Abdominal tenderness is a common, nonspecific finding; localized abdominal tenderness that persists after tensing the abdominal wall muscles usually indicates abdominal wall pain.

Diagnosis

- It is important to make a positive clinical diagnosis of IBS by history and physical examination.
- **The Rome criteria** for IBS are specific for the syndrome: two or more of
  - (1) pain (or discomfort) relieved by defecation,
  - (2) pain associated with increased or decreased stool frequency, or
  - (3) pain associated with harder or looser stools.

Diagnosis

- In older patients and those with "red flags" investigations are mandatory to exclude important diseases that may be confused with IBS.
- Red flags include:
  - Fever.
  - Bleeding.
  - Anemia.
  - Steatorrhea.
  - Persistent vomiting.
  - Prominent diarrhea.
  - Unexplained weight loss.
  - Strong family history of colon cancer.

Diagnosis

- Flexible sigmoidoscopy is useful to exclude ulcerative colitis but is not required routinely.
- Rectal biopsy specimens may be obtained from patients with predominant diarrhea to exclude collagenous or microscopic colitis.
- In patients older than 50 years with new-onset symptoms, either colonoscopy or a double contrast barium enema with flexible sigmoidoscopy is mandatory.

Diagnosis

- The value of laboratory tests is low in patients with typical symptoms and no red flags.
- Lactose intolerance causes diarrhea and bloating and is common in certain racial groups. Testing for bacterial overgrowth is not routine
- Of those with typical IBS symptoms, up to 5% may have undiagnosed celiac disease.
  - Screening for celiac disease should be considered
  - Positive screening tests are an indication for small bowel biopsy.

Diagnosis

- Thyroid-stimulating hormone levels should be measured if there is clinical suspicion of hyperthyroidism (diarrhea) or hypothyroidism (constipation).
- If severe pain is predominant, a plain abdominal radiograph is indicated during an acute episode.
- Pelvic inflammatory disease, gynecologic examination and pelvic ultrasonography should be considered according to clinical situation.

Treatment

- General Measures
  - Physician-Patient Relationship.
  - Aggravating Medications or Drugs.
  - Stress and Psychiatric Symptoms.
  - Dietary Recommendations.
- Medical Therapy.
- Ancillary and Other Therapies.

Treatment

- **Physician-Patient Relationship**
- A good physician-patient relationship is therapeutic.
- Reassurance and explanation remain essential components of management.
- Provide the patient with a positive diagnosis.
- Patients need to be advised that IBS is not life-threatening and does not cause cancer.
- Extensive battery of tests without explanation are likely to cause confusion.

Treatment

- **Aggravating Medications or Drugs**
- Unnecessary drugs should be avoided.
- Constipation may be aggravated by
  - NSAID, Opiates.
  - Anticholinergics.
  - Calcium channel blockers.
- Diarrhea may be exacerbated by
  - Antibiotics, and laxatives.
  - Magnesium-containing antacids.
  - Sorbitol-containing cough syrups.

Treatment

- **Stress and Psychiatric Symptoms**
- Reduction of stress may be helpful.
- Fear of serious disease or coexistent psychiatric must be identified and addressed.
- Depression may coexist with IBS.
- If gastrointestinal symptoms are a minor component in patients with a multitude of generalized symptoms, somatization disorder should be considered.

Treatment

- **Dietary Recommendations**
- High-fat diets should be avoided.
- Avoidance of milk products may be helpful.
- Regular exercise and adequate fluid intake are recommended in patients with predominant constipation
- Increasing dietary fiber with unprocessed bran can relieve constipation.

Treatment

- **Medical Therapy**
- The placebo response in IBS is 30 to 60%.
- Drugs must be used sparingly in IBS because at best they provide symptomatic, not disease-modifying therapy.
- **In patients with postprandial abdominal pain**
  - Antispasmodics may be useful when used before meals.
  - Anticholinergic side effects should be considered, including dry mouth, blurred vision, and urinary retention
  - Peppermint oil may also be useful for IBS in some patients

Treatment

- **Patients with constipation-predominant IBS**
- Dietary fiber.
- 5-HT4 agonist "tegaserod" which is a prokinetic agent that is well tolerated and showed improvement constipation-predominant IBS.
- Polyethylene glycol can improve constipation.
- Lactulose, sorbitol can be titrated to treat constipation.
- Stimulant laxatives, such as bisacodyl should be avoided;
  - as water and electrolyte loss, aggravation of pain.
  - long-term use $\rightarrow$damage of the colonic myenteric plexus
- Metoclopramide and domperidone are not effective.

Treatment

- **Patients with diarrhea predominant IBS**
- Loperamide (withdrawn from Egyptian market)
  - Slows intestinal transit and
  - Increases intestinal water absorption;
  - Best taken to prevent diarrhea and not after.
  - Abdominal pain is not relieved by loperamide.
- A bile acid–sequestering agent such as cholestyramine.
- a 5-HT3 antagonist "alosetron"
  - In severe unresponsive cases of diarrhea,
  - Slows intestinal transit and relaxes the colon
  - Side effects include severe constipation and ischemic colitis, and it is contraindicated in patients with constipation.

Treatment

- Tricyclic antidepressants (e.g. amitriptyline)
  - Useful in resistant patients or those with chronic pain
  - Benefits may occur within 3 to 4 weeks.
  - Should be started at a low dose in the evening.
  - These drugs may worsen constipation.
  - High incidence of anticholinergic side effects, tremor, postural hypotension, and arrhythmias
- Selective serotonin re-uptake inhibitors (e.g.citalopram)
  - May be useful in constipation-predominant IBS
  - Used once daily in the morning.
  - Side effects are less than with tricyclic antidepressants
  - Side effects include nausea, diarrhea, and weight loss.

Treatment

- Simethicone is not usually helpful for bloating.
- Activated charcoal can reduce flatus.
- The probiotic bifidobacterium reduced pain and bloating.
- Nonabsorbed oral antibiotic may improves symptoms.
- **Ancillary and Other Therapies**
- Patients with no respond to usual pharmacologic therapy should be encouraged to join a local IBS support group.
  - Relaxation therapy
  - Hypnosis, Psychotherapy
  - Cognitive behavioral therapy.

Prognosis

- Most patients continue to be intermittently symptomatic.
- The life expectancy of patients with IBS is no different from that of the background population.

Thank you