MASSACHUSETTS GENERAL HOSPITAL
PSYCHIATRY ACADEMY

The Intersection of GI Disorders & Psychiatry—A Way Forward

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"Neither I nor my spouse/partner has a relevant financial relationship with a commercial interest to disclose."

Introduction

- There is a close relationship between the gut & the brain
- Physical and psychological distress caused by GI disorders leads to:
  - High utilization of care
  - Lower quality of life
  - loss of productivity
- Functional & structural GI syndromes are linked with higher rates of psychiatry illness
- Behavioral and pharmacologic treatments can help

Gastrointestinal Disorders

- Psychiatric disorders and stress are prevalent in both structural and functional disorders
- Gut-brain axis
  - Close ties
  - Shared neurotransmitters
- Emerging data on the role of the microbiome

Functional GI Disorders

- Lack clear structural etiology
- Defined by their symptoms
- Functional is not the same as “psychiatric”
  - Pathophysiology is not completely understood
- Gut-brain axis
  - Bidirectional communication involving autonomic nervous system & HPA axis

Functional GI Disorders

- Gut-brain axis helps explain how psychosocial factors, personality styles, and co-morbid psychiatric issues influence GI disorders
- Predisposing factors
  - Trauma (particularly physical and sexual abuse)
  - Maladaptive coping
  - Emotional hypersensitivity

Functional GI Disorders

- Rome Criteria developed for consistency in diagnosis
- Rome IV emphasizes
  - Effort to move away from “organic vs functional”
- Rome IV Criteria definition
  - Motility disturbance
  - Visceral hypersensitivity
  - Altered mucosal and immune function
  - Altered gut microbiota
  - Altered CNS processing

Rome Foundation, 2016

Functional GI Disorders

- Psychiatric syndromes are frequently co-morbid:
  - Major Depressive Disorder (MDD)
  - Generalized Anxiety Disorder (GAD)
  - Somatic Symptom Disorder (SSD)

Functional GI Disorders

- Oropharyngeal Disorders
  - Rumination syndrome (regurgitation)
  - Burning mouth syndrome
  - Xerostomia (dry mouth)
  - Dysphagia
  - *Globus hystericus*
- Treatment
  - Behavioral
  - Biofeedback
  - Olanzapine for burning mouth
  - TCAs
  - Treat co-morbid MDD, GAD, Panic Disorder (PD)

Functional GI Disorders

- Upper GI Disorders
  - Functional heartburn (absence of clear gastroesophageal reflux disorder [GERD])
  - Non-cardiac chest pain
- Treatment
  - TCAs (low dose)
  - Biofeedback
  - Maybe SSRIs

Functional GI Disorders

- Nausea and vomiting
  - Cyclic
    - Cannabis-induced
  - *Hyperemesis gravidarum*
  - Anticipatory
  - Functional
- Treatments
  - Vary depending on etiology/severity
  - 5-HT3 antagonists
  - Benzodiazepines for anticipatory and cyclic
  - Steroids for extreme cases (*gravidarum*)
  - Hypnosis, acupuncture, relaxation therapy
  - TCAs for cyclic vomiting syndrome

Functional GI Disorders

- Lower GI Disorders
  - Inflammatory bowel disease
    - Structural but often worsens with stress/anxiety/depression*
    - Crohn's & Ulcerative Colitis
  - Significant decrement in quality of life (QOL)
  - Coping style influences QOL
  - Important to treat co-morbid anxiety, stress, and depression
    - Watch for medication side effects
  - Behavioral therapies that focus on coping strategies

Functional GI Disorders: Irritable Bowel Syndrome (IBS)

- Characterized by abdominal pain relieved by defecation
- Accompanied by changes in stool appearance or frequency
- May include bloating, flatulence, urgency or straining
- Co-morbid medical conditions are common:
  - GERD
  - Functional dyspepsia
  - Chronic pelvic pain
  - Interstitial cystitis
  - Fibromyalgia
  - Headache
  - Sleep disturbance

Functional GI Disorders: Irritable Bowel Syndrome (IBS)

- Pathophysiology
  - Abnormal GI motility
  - Gut microbiome disruption
  - Altered stress response
  - Changes in serotonin signaling
  - Inflammation
  - Psychological dysfunction
- QOL is worse than in the general population
- Prevalence of Axis I disorders: 40-94%
  - Major depression is the most common
  - Anxiety and Somatic Symptom Disorders are also common

Functional GI Disorders: Irritable Bowel Syndrome

- Psychological interventions
  - CBT
  - Psychodynamic psychotherapy
  - Hypnosis
  - Relaxation therapy
    - All superior to usual care
    - Mixed results when compared to placebo
    - CBT has the most positive results

Functional GI Disorders: Irritable Bowel Syndrome

- Pharmacological Interventions
  - TCAs & SSRIs both efficacious
    - TCAs—used in low doses
    - Used more often with diarrhea
  - SSRIs
    - Efficacy less robust, though they offer greater tolerability
    - Used more often when constipation present
    - Note—SSRIs are safer for MDD with risk of suicide & with co-morbid cardiac disease

Conclusion

- Detection and treatment of psychiatric disorders in those with GI disturbance is important
- While anxiety and depression have a more prominent role in FGIDs, treatment improves:
  - QOL
  - Outcomes in all GI disorders
- Behavioral, psychotherapeutic, and pharmacologic treatments:
  - Have been efficacious

Reference

- Glass SP: Patients with gastrointestinal disease. In: Stern TA, Freudenreich O, Smith FA, et al, editors. Massachusetts General Hospital Handbook of General Hospital Psychiatry, ed 7, MGH Psychiatry Academy, Boston, MA, 2018: pp. 313-326.