

Gut Feelings: Mental Health and IBD

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Conflicts of Interest

- Investigator-initiated grant from Allergan
- No other financial conflicts to disclose

Outline

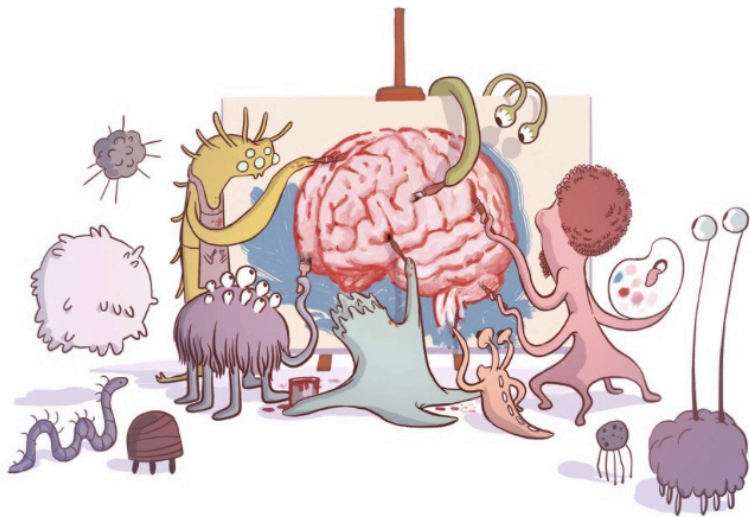
- Review gut-brain axis
- Explore the relationship between mental health and IBD
- Discuss quick screening tools for anxiety and depression
- Review when to refer to a mental health professional

“Trust your gut”

“Gut reaction”

“Butterflies in your stomach”

“Sick to your stomach”

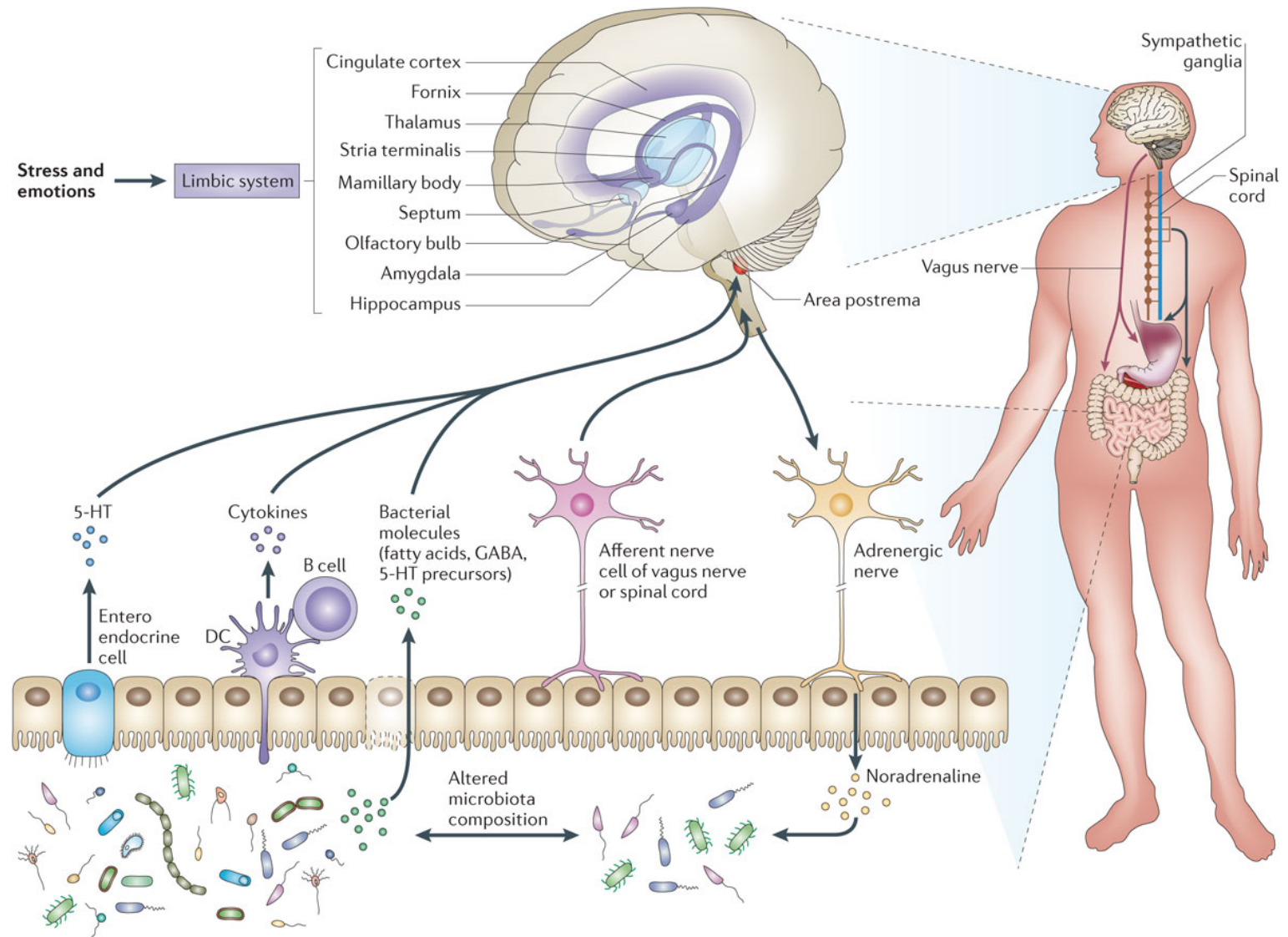


Charles Darwin

The Expression of the Emotions in Man and Animals ~ 1872

“The manner in which the secretions of the alimentary canal and of certain other organs... are affected by strong emotions, is another excellent instance of the direct action of the sensorium on these organs, independently of the will or of any serviceable associated habit”

Microbe-Gut-Brain Axis



Change the microbiome, change the behaviour

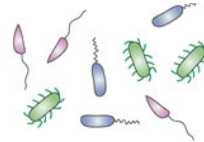
BALB/c mice = anxious



NIH Swiss mice = gregarious



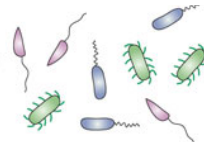
Change the microbiome, change the behaviour



Gregarious

Germ Free BALB/c mouse

NIH Swiss microbiome



Anxious

Germ Free NIH Swiss mouse

BALB/c microbiome

RELATIONSHIP BETWEEN MENTAL HEALTH & IBD

Psychiatric Comorbidity IBD

- Majority of clinical and population-based studies show elevated rates of anxiety and depression in patients with IBD

Manitoba IBD Cohort

- Lifetime prevalence – MDD 27% vs 12% controls
- GAD 13% vs 6% controls
- Panic 8% vs 5%
- OCD 3% vs 2%

Half of those with a mood disorder experienced a first episode of depression >2 years

before onset IBD

Walker JR et al. Am J Gastroenterol 2008; 103:1989

Impact Mental Health on IBD

- Psychiatric symptomatology associated with increased symptom severity, disease exacerbations and poorer quality of life
- MDD risk factor for failure to achieve remission with infliximab
- Depression and anxiety are associated with an increased risk of surgery in CD (OR 1.28, 95%CI 1.03-1.57)

Ananthakrishnan et al. Aliment Pharmacol Ther 2013; 37:445

Mittermaier C et al. Psychosom Med 2004; 66:79

Stress and IBD

- Stressful life events predict occurrence of a flare in the next 3 months
- ***Perceived stress*** is associated with increased GI symptoms, independent of inflammation

Bernstein CN et al. Am J Gastroenterol 2010 105(9):1994-2002

Targownik LE et al. Am J Gastroenterol 2015; 110:1001-1012

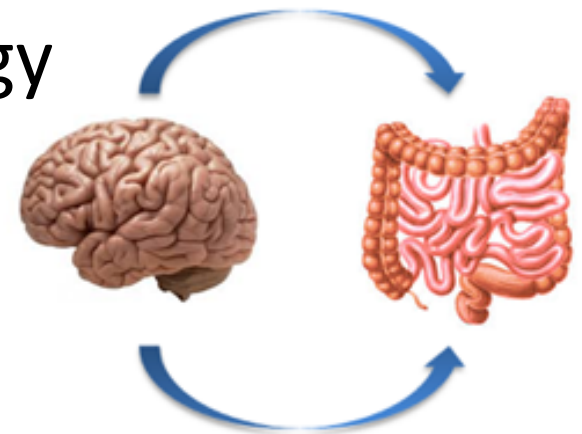
Impact IBD on mental health

- Chronic illness generally associated with poorer quality of life
- Patients with IBD have lower psychological well-being and mastery than non-IBD controls
- Can be an impact of treatment (for example corticosteroids) on mental health

TAKE HOME POINTS:

Bidirectional Relationship

- Underlying anxiety, depression impacts on ability to cope with chronic illness and manifestation of symptoms
- Experience of chronic illness can worsen mental health and trigger or intensify psychiatric illness
- Potential shared pathophysiology



SCREENING

Screening for anxiety and depression

- Symptoms of anxiety: excessive worries future, avoidance feared situations, physiological arousal
- Symptoms of depression: sad or depressed mood, loss interest normal activities, feelings guilt, worthlessness, hopelessness, problems with neurovegetative symptoms, suicidal ideation
- Persist beyond a few weeks, interfere with functioning

Depression in the medically ill

DSM Criteria

Minimum of 2 weeks, 5 symptoms present :

Depressed mood or irritability

Decreased interest or pleasure

Significant weight change or change in appetite

Change in sleep

Change in activity

Fatigue or loss of activity

Guilt/worthlessness

Impaired concentration

Suicidality

Depression in the medically ill

DSM Criteria

Minimum of 2 weeks, 5 symptoms present :

Depressed mood or irritability

Decreased interest or pleasure

Significant weight change or change in appetite ✓

Change in sleep ✓

Change in activity ✓

Fatigue or loss of activity ✓

Guilt/worthlessness

Impaired concentration ✓

Suicidality

Screening of anxiety and depression (PHQ4)

Over the past 2 weeks, how often have you been bothered by the following problems? (not at all, several days, more than half the days, nearly every day)

- Feeling nervous, anxious or on edge
- Not being able to stop or control worrying
- Little interest or pleasure in doing things
- Feeling down, depressed, or hopeless

Other screening tools

- Luebeck Interview for Psychosocial Screening (LIPS)
- Hospital Anxiety and Depression Scale (HADs)
- 5-item Anxiety and Depression Detector

All take 5-10 minutes to administer

Kunzendorf S *Inflamm Bowel Dis* 2007; 13:33-41

Zigmond AS et al. *Acta Psychiatr Scand* 1983; 67(6):361-70

Means-Christensen AJ et al. *Gen Hosp Psychiatry* 2006; 28:108-118

Incorporate into your interview

- Living with IBD can be difficult...
- Have you been having difficulty with stress or worry?
- Have you been feeling anxious, tense, on edge much of the time?
- Have you felt down or depressed most of the day?
- Have you lost interest in most things or find you just don't enjoy things lately?

When to screen?

- Initial Diagnosis
- Active disease
- Refractory symptoms despite adequate therapy and absence of disease activity
- Patient presentation suggestive of anxiety or depression
- Consider routine screening

TREATMENT PRINCIPLES

IBD patients under-treated

- In one study, 43% of IBD patients had anxiety and/or depression but only 18% received psychological treatment and 21% used psychotropic medication
- 17% those with depression and IBD had considered suicide in previous 12 months

Evertsz et al. Journal of Crohn's and Colitis 201; 6:68

Fuller-Thompson et al. Inflamm Bowel Dis 2006; 12:697-707

Treatment Mental Health in IBD

- Explain condition and common comorbidity in patients with IBD
- Emphasize importance dealing with symptoms, impact on health, functioning, quality of life
- Treatment can be pharmacological or psychological

Treatment Mental Health in IBD

- Risk stratify based on severity, acute safety concerns
- Discuss patient preference, available options
- Options: initiate pharmacological treatment, refer back to GP, refer to counsellor/psychology, refer to psychiatry
- Community resources in your area

When to refer

- Severe anxiety or depression
- Any acute risks (consider form 1 criteria, ER, community crisis teams, police, rapid consults)
- Comfort level of GI, GP treating psychiatric illness
- Patient refractory to initial treatment
- Complex comorbidity
- Patient preference

Referrals

- Consider developing a relationship with both psychology and psychiatry in your area
- Integrated care works best – enhanced communication, reduced stigma, specialized care
- Become aware of the community resources in your area

TREATMENT OPTIONS

Antidepressant Treatment IBD

- Case reports and open studies suggest that antidepressants may improve IBD symptoms as well as mood and anxiety
- Lack of evidence from RCTs to guide treatment
- Treatment often limited by GI side effects



Antidepressant Tips



- SSRIs generally cause diarrhea but can still be tolerated in many IBD patients
- Escitalopram is often prescribed due to its favourable side effect profile and limited drug-drug interactions
- Generally sertraline should be avoided as it causes the most GI side effects

Psychological Therapies IBD

- Over 16 studies of psychological therapies in IBD, largely stress management and CBT
- Stress management showed modest benefits in mental health symptoms and QoL
- CBT showed generally consistent benefits in anxiety and depression, inconsistent evidence for IBD symptoms
- Significant methodological limitations

Knowles et al. Inflamm Bowel Dis 2013; 19(12)

McCombie et al Inflamm Bowel Dis 2015 In Press

FMT for anxiety and depression?

Fecal Microbiota Transplantation Induces Remission in Patients With Active Ulcerative Colitis in a Randomized Controlled Trial



Paul Moayyedi,¹ Michael G. Surette,¹ Peter T. Kim,^{2,3} Josie Libertucci,¹ Melanie Wolfe,¹ Catherine Onischi,³ David Armstrong,¹ John K. Marshall,¹ Zain Kassam,⁴ Walter Reinisch,¹ and Christine H. Lee³

¹Farncombe Family Digestive Health Research Institute, Department of Medicine, McMaster University, Hamilton, Ontario, Canada; ²Department of Mathematics and Statistics, University of Guelph, Guelph, Ontario, Canada; ³Department of Pathology and Molecular Medicine, St Joseph's Healthcare, McMaster University, Hamilton, Ontario, Canada; and ⁴Department of Biological Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts

FMT for UC

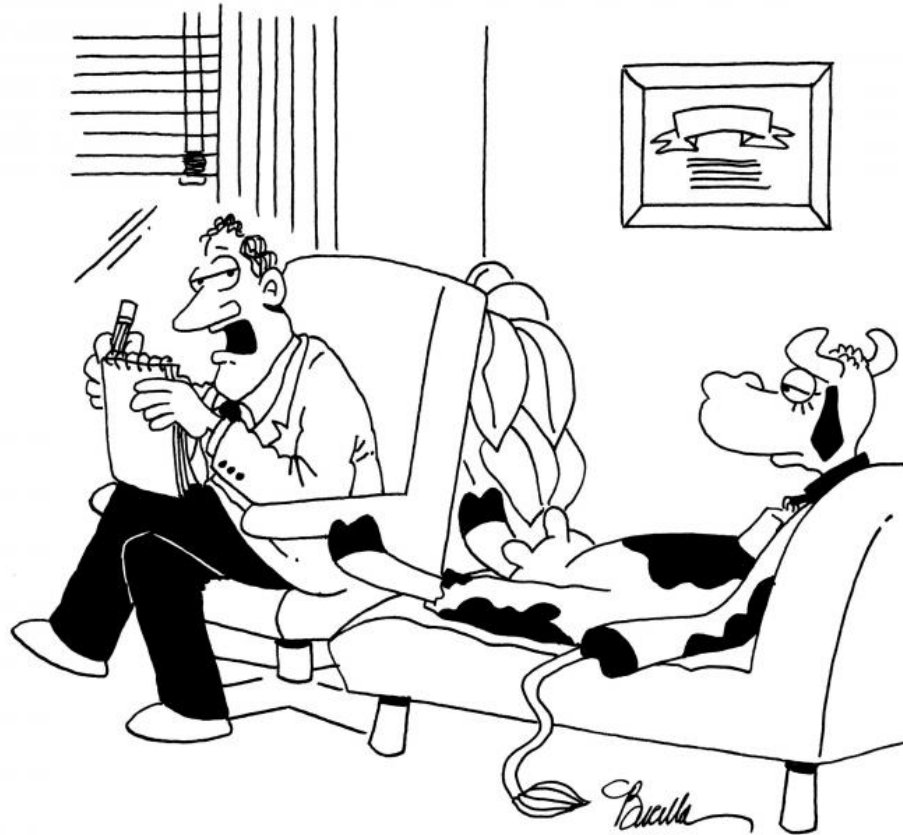
- Received 50mL FMT via enema from healthy donors (n=38) or placebo 50mL water enema (n=37), weekly for 6 weeks
- Patients, clinicians, investigators blinded
- Primary outcome remission UC, Mayo score ≤ 2 , endoscopic score 0
- Depression and anxiety measured using HADs

FMT and anxiety/depression?

- HADs available for 68 patients
- No effect of FMT on anxiety compared to placebo (mean HAD-A FMT 6.09 ± 3.93 vs 6.00 ± 4.02 (MD 0.09, 95% CI -1.84 to 2.01))
- No effect of FMT on depression compared to placebo (HAD-D FMT 5.00 ± 3.81 vs 4.88 ± 4.07 (MD -0.12, 95% CI -2.03 to 1.79))

Summary

- Gut-brain axis likely plays an important role in bidirectional relationship between mental health and IBD
- Mental health aspects important in IBD disease expression, functioning of patients and quality of life
- Screen patients for anxiety and depression and refer for appropriate follow-up when indicated
- In the future we may have an enhanced understanding of common pathophysiological pathways between psychiatric illness and IBD which may lead to improved treatment options



"Hate is a pretty strong word. Are you sure
you're not just lactose intolerant of
your mother?"

DISCUSSION AND QUESTIONS?