THE Insight NEWSLETTER

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Doctor's Data and Labrix teams have joined forces to produce educational content for providers.

Events

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Laboratory, Endocrine, & Neurotransmitter Symposium

October 4 - 6, 2019
Portland, OR

Approved for 4.25 Pharm CEs from the OBNM!

Gain additional clinical insight and treatment considerations to evaluate some of the most prevalent and challenging conditions that patients present with, including depression, anxiety, altered mental focus and stamina, sexual dysfunction, sleep disturbances, addictions and dependencies, weight management, and chronic disease. Register now to get the early bird price of $329 (reg. $379).

Is Stress Affecting Your Microbiome?

By Julia Malkowski, ND, DC | July 23, 2019

Chronic stress is all too prevalent and it can be a significant impediment to disease prevention and optimal health. Stress increases cortisol which may have a profound impact on the gastrointestinal (GI) microbiota and metabolome, selectively decreasing beneficial bacteria and secretory IgA (sIgA). Thus, it is not surprising that clinical interventions implemented to resolve GI symptoms may not be completely successful if stress is not considered as a potential root cause.

Chronic stress directly effects our gastrointestinal health via hypothalamic-pituitary-adrenal (HPA) axis activation. Stress can adversely affect GI bacteria and secretory IgA (sIgA), which may influence intestinal permeability, and selectively decrease beneficial bacterial species. Stress stimulates the hypothalamus to release corticotrophin releasing hormone (CRH) into the anterior pituitary, which causes the release of adrenocorticotropic hormone (ACTH) into systemic circulation. That stimulates cortisol, norepinephrine and epinephrine release from the adrenal glands. This HPA axis activation influences interleukins and sIgA production. Under acute conditions of stress, fecal sIgA may be upregulated as a protective mechanism. Chronic stress will down regulate fecal sIgA, which increases the risk of GI infection. Animal models have provided insight into stress and its effects on the GI microbiome. Stress caused by maternal separation of rhesus

Register Now

Wellness Wednesday

Webinar Series

Topic: Taking Action - Hormone Testing and Prescribing

By: Heather Hydzik, ND

August 7, 2019

Join Labrix clinical staff and special guests on the first Wednesday of every month at 9:30 AM and 12:00 PM PST. This free, live webinar series will cover a variety of neuroendocrine topics that will enhance your knowledge, with clinically applicable testing and treatment considerations. 1 CE credit available upon attendee request.

August 7, 2019: 9:30 AM Registration

August 7, 2019: 12:00 PM Registration

IWHIM

Portland, OR:

July 26-28, 2019

Make sure to visit our booth at **IWHIM** in Portland. Dr. Lylen Ferris from Labrix will be discussing neurotransmitters and the HPA axis on Friday, July 26. Chat with our booth representatives to learn what's new.

monkeys changed their microbiome via decreased Bifidobacterium and Lactobacillus. Rat pups separated from their mother exhibited decreased Lactobacillus levels which was maintained for an extended period of time. Such may lead to intestinal dysbiosis and chronic low-grade inflammation. Gastrointestinal dysbiosis and chronic low-grade inflammation have been implicated in IBS and depression. Chronic stress weakens the intestinal mucosal barrier and permits paracellular bacterial translocation from the lumen. That stimulates inflammatory mediators which further activates the HPA axis.

Specifically addressing the GI microbiota might serve to alleviate the negative effects of stress. Probiotics are a promising approach to combat the negative effects of stress. Lactobacillis has been shown to lower corticosterone. Supplementation of Lactobacillus helveticus and Bifidobacterium longum for two weeks lowered scores in anxiety tests in an animal model. Lactobacillis helveticus and rhamnosus reduced anxiety and depression like behaviors in murine models. Probiotic treatment reduced depression-like behaviors and increased levels of a neuroprotective acid via microbial metabolism of tryptophan. Administration of B. infantis in adulthood improved immune system abnormalities and depressive like behaviors, which were a result of early maternal separation. The microbial stress response to ACTH, was reversed by administration of B. infantis, and there was a greater response in subjects whom had B. infantis colonization early in life. Proper microbial colonization early in life serves to influence the HPA axis.

Our modern lifestyles influence our health via chronic stress and HPA axis activation, fecal sIgA, GI microbial composition and intestinal permeability. Clinicians can evaluate levels of fecal sIgA, the GI microbiota, and intestinal permeability to gain insight into potentially confounding roles of stress on GI and systemic symptoms. Testing HPA axis function and neurotransmitter secretion can be an important tool in helping to address the imbalances that can result from long term chronic stress. Stress management should be considered as part of comprehensive clinical intervention. The interplay between stress, the HPA axis and the gastrointestinal system is complex and intricate, while the impacts on human physiology are vast.

References

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AANP

Portland, OR:

August 15-17, 2019

Labrix will be in Portland for **AANP** on August 15 - 17. Come chat with our booth representative and learn more about testing with Labrix and Doctor's Data.

More Events

Archived Newsletters

Secretory IgA and Oral Health | 7/09/2019

Sensitivity and Specificity | 6/25/2019

World Health Organization Recognizes Burnout as a Legitimate Syndrome | 6/11/2019

The Green Drink Conundrum: Potential Thallium Exposure and Neurological Risks | 5/29/2019

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