

Muscles, Connective Tissue Between Organs Influence Illness

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AUSTIN, Texas — Only recently have researchers begun to pay much attention to fascia, but the connective tissue may hold clues to a wide array of diseases including inflammatory bowel disease (IBD), said Helene Langevin, MD, director of the National Center for Complementary and Integrative Health (NCCIH) at the National Institutes of Health.

Fascia, in combination with mechanical forces, is usually thought of as it pertains to the musculoskeletal system, but its function is being realized throughout all body systems.

"When we think about the digestive system, we tend to think about it more like a tube. We've gotten very good at looking at this tube from the inside," Langevin said during her keynote address here at the Crohn's and Colitis Congress 2020.

But what gets lost in that approach is the effect that other body systems, particularly the function of the muscles and the connective tissue between organs, have on gastrointestinal diseases, and that area of research is wide open, she said.

She gave an example of the role of the diaphragm.

Gastroenterologists Urged to Look Beyond the "Tube"

When the diaphragm moves, she explained, it creates a physical force that pushes down the abdominal organs; the mechanical forces from the diaphragm to the esophagus are transmitted by fascia.

"When the fascia connections between the esophagus and the diaphragm are taken into account, it's hard to imagine how mechanical forces created by the diaphragmatic movements would *not* influence the gastroesophageal junction," said Langevin.

Currently, patients with gastroesophageal reflux disease (GERD) might be advised to avoid certain foods or elevate their head in bed, and are often prescribed proton pump inhibitors. "I think an area that warrants more investigation is breathing and specific exercises, like those in yoga or meditation," she said.

Similarly, the frequent comorbidity between chronic low back pain and bowel disorders is well known but is often thought to be contained in the central nervous system.

Low Back Pain and Bowel Disorders

"But there may be some mechanical relationships that should be taken into account," Langevin said. "Patients who have IBD and back pain are three times more likely to have mechanical causes of back pain than they are to have an arthritis-related connection. It's important to start thinking about comorbidities in different ways."

Ligaments and fascia surround the core, she noted. Trunk muscles, including the psoas muscle, have much to do with posture and are connected to the diaphragm.

To further the whole-body approach, the NCCIH is looking at improved imaging solutions to better identify connections, Langevin said. And more people are specializing in integration between conventional and complementary medicine and are available for consults, she added.

A member of the audience pointed out that the current insurance landscape has created access gaps because complementary treatments are expensive and are often not covered.

But there is movement on that front. Coverage for acupuncture for low back pain [was approved](#) by the Centers for Medicare and Medicaid Services just last week, Langevin reported.

"This is an area that's moving fast," she said. "Once Medicare starts paying for something, a lot of insurance carriers will follow."

Clinicians and researchers are very good at measuring negative outcomes — fatigue, impairment, pain, and disability — but "we're not as good at measuring what happens when people move back toward health, such as emotional and physical well-being, resilience, and stamina," Langevin said.

IBD is a disease with flares and remissions. Although medications are necessary to control the flares, there might be an opportunity in the remission stage to introduce complementary therapies that can help improve sleep, lessen stress, reduce unwanted weight, and improve health, she pointed out.

Focusing on the ways positive and negative outcomes relate to each other is important, she said, such as how psychologic resilience relates to the repair and regeneration of tissues.

Langevin's address was "provocative," said Rajeev Jain, MD, from Texas Digestive Disease Consultants in Dallas.

With conventional therapies for IBD leading to control rates of only about 40%, "there's a huge unmet need," he told *Medscape Medical News*.

Unmet Need

Those in the field of medicine must keep an open mind when it comes to the integration of complementary therapies, Jain said.

Decades ago, when he was in medical school, there was a study suggesting that ulcers were caused by *Helicobacter pylori* bacteria in the stomach.

"It was completely ridiculed at that time," he explained. The thinking was that you can't have an infection in the stomach with the acidity. But when the association was proven, it revolutionized ulcer treatment.

Langevin described the integration of complementary therapies in three main areas —dietary, psychologic, and physical — and those spheres often overlap. Yoga, for example, has both a physical and psychologic component, as does acupuncture.

Cognitive behavioral therapy, which is thought to be more of a conventional therapy, is gradually incorporating elements considered to be complementary, such as relaxation and mindfulness techniques, she said. And physical therapists are getting cross-training in complementary treatments, such as myofascial release and spinal manipulation.

The overlapping spheres got Jain thinking.

"We like to put things in silos," he said. But for patients with IBD, the dietary aspect of food is one focus, but another is the psychologic enjoyment and social context of eating.

Of course, as with any treatment, there will need to be proof that complementary therapies help, and don't harm, patients, Jain said.

"We're sorely lacking that," he said, adding that getting research support might be difficult. "The reality is that a lot of funding comes from the industry side. This isn't something that leads to a pill."

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