Some individuals 'hardwired' to experience chronic GI pain

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Pain is a normal human experience, but some people are hardwired physically, emotionally or both to progress to chronic pain states, according to the presenters at Sunday's ROME Foundation AGA Institute Lectureship on *Understanding and Treating the Brain's Contribution to Pain*.

Irene Tracey, PhD, the Nuffield Professor of Anaesthesic Science and director of the Oxford Center for Functional Magnetic Resonance Imaging of the Brain at Oxford University, U.K., explained how the brain affects chronic pain.

The central nervous system addresses pain with a "good cop-bad cop" approach, she explained. The bad copy is pronociception, which leads to widespread, whole-body pain in humans. The good cop is anti-nociception, which reduces sensitivity to painful stimuli.

Anxiety and depression are amplifiers and sensitizers of pain, and they both exacerbate the pain experience, Dr. Tracey added. Her research and that of others has shown that individuals can control their own perception of pain, especially when distracted from focusing on the pain.

And because both emotional and physical factors are involved, the treatment for chronic GI pain may include pain medication and behavioral interventions. Laurie Keefer, PhD, AGAF, associate professor of medicine, psychiatry and behavioral sciences at Northwestern University Feinberg School of Medicine in Chicago, IL, described four behavioral interventions commonly used to deal with the depression and anxiety associated with chronic pain.

The gold standard of behavioral interventions is cognitive behavioral therapy, a treatment approach that assumes that the perception of pain affects behavior and that fear of pain directly interferes with function, she explained. Therapists teach patients how to confront the pain directly, that suffering should be anticipated and that emotional and behavioral avoidance of pain is the reason they are disabled.

Douglas A. Drossman, MD

An AGA Clinical Symposium on Sunday covered the brain's influence on chronic pain conditions.

Hypnotherapy is another behavioral intervention that can be used. Hypnosis creates a focused state of awareness and shifts attention away from the negative emotions the patients are experiencing. It has been used to treat a variety of medical conditions, including irritable bowel syndrome (IBS). One study showed that post-hypnotic suggestions are critical in reducing the patient's attention on negative emotions.

A variety of drugs are used to treat chronic pain syndromes, but most are used off-label, noted ROME Foundation President Douglas A. Drossman, MD, who discussed pharmacotherapy for chronic abdominal pain during the session.

Antidepressants are commonly used for functional abdominal pain disorders and functional GI disorders, such as IBS and functional dyspepsia, said Dr. Drossman, professor emeritus of medicine and psychiatry, and founder and director of the Center for Functional Gastrointestinal and Motility Disorders at the University of North Carolina School of Medicine in Chapel Hill.

"There is a clinical rationale to using antidepressants," he said. "Gastroenterologists should become familiar with the use of antidepressants if they are dealing with chronic pain conditions. One of the messages you can tell your patients if they say they are not crazy, not depressed, say that the brain and the gut are hardwired. Drugs used for the brain will affect the gut as well."

Tricyclic antidepressants may be more effective than selective serotonin reuptake inhibitors (SSRIs) for chronic pain because they work on serotonergic and noradrenergic systems, whereas SSRIs are primarily serotonergic in action, Dr. Drossman explained.

Other medications used to treat chronic abdominal pain include the antidepressant mirtazapine, the hypotensive agent clonidine and the anxiolytic agent buspirone. The antipsychotic agent quetiapine may be used for anxiety, while the Alzheimer medication memantine may affect the development of chronic pain, he added.