



ASK THE EXPERT

Question: *Why are you treating me with antidepressants for my abdominal pain? I am not depressed!*

Syed Thiwan, MD

Research Instructor in Medicine

We often prescribe antidepressants for the treatment of abdominal pain and other functional GI disorders, but this does not mean we are treating you for the sole purpose of depression. Antidepressants are often used for these disorders because of their effects on pain perception. It is also helpful to know that one-third of IBS patients do have an associated psychiatric illness, such as depression or anxiety.

There are two broad types of antidepressants available. One is tricyclic antidepressants (TCA e.g. amitriptyline, desipramine) and the other is called selective serotonin reuptake inhibitors (SSRI e.g. Prozac, Paxil, Celexa).

Antidepressants affect the levels of chemicals that are involved in the transmission of electrical impulses between parts of the nervous system called neurotransmitters. TCAs affect dopamine, serotonin, nor-epinephrine, and acetyl choline levels, while SSRIs primarily affect serotonin and nor-epinephrine levels.

TCAs were traditionally used for the treatment of depression 25 years ago. They have many side effects at full doses, and when they are overdosed they are life threatening. As a consequence, SSRIs have now largely replaced TCAs for the treatment of psychiatric illness. However, low doses of TCAs are still used for many chronic pain conditions, such as migraine, diabetic peripheral neuropathy, and chronic back pain. In lower doses, the side effects of TCAs are not that bad and they tend to disappear over time when patients continue to take them.

There are several reasons why we use antidepressants for the treatment of functional GI disorders. Several research studies have shown that TCAs have an effect on several levels of pain pathways that connect the intestines and the brain. First and foremost, it can act at the level of the origin of pain by reducing your gut sensitivity to painful stimulus. Alternatively, it can reduce the amount of pain impulses that reach the brain by acting at the spinal cord level or by promoting a blocking action of some of the nerves that run from the brain to the spinal cord.

TCAs can affect the function of the intestines, i.e. contraction and relaxation of intestinal muscle, secretion of fluid, and enzymes from intestinal glands.

Sometimes, an additional purpose of antidepressants is to treat other psychiatric conditions that a patient may have. Patients with IBS often get depressed because of severe disabling symptoms, or they are anxious about the possibility of having a serious disease such as cancer. Sometimes you can have both

depression or anxiety and IBS. SSRIs are better suited as a treatment option when this is the primary reason for prescribing antidepressants.

Although SSRIs have not yet been studied as extensively as TCAs, studies have shown that some of the SSRIs may also have the above-mentioned effects on pain sensation.

There is now a third and newer type of antidepressant (e.g. Effexor, Remeron and Cymbalta). These affect not only serotonin but also nor-epinephrine and dopamine levels in the nervous system. To the extent they seem to combine the effects of TCAs and SSRIs, these newer antidepressants can be used in appropriate patients without concerns about the side effects of full-dose TCAs. In fact, one of these newer antidepressants has been approved by the FDA for diabetic neuropathy.

The specific choice of an antidepressant depends on the patient's bowel symptoms, associated mood symptoms, side effects of a particular antidepressant, familiarity of the physician with that particular drug, and cost of the drug.

When used in the right doses for right period of time, antidepressants can not only help control the bowel symptoms but also may help you to cope better with illness and improve your quality of life.