

Cause of irritable bowel syndrome

As discussed previously, irritable bowel syndrome is believed to be due to the abnormal function (dysfunction) of the muscles of the organs of the gastrointestinal tract or the nerves controlling the organs. The nervous control of the gastrointestinal tract, however, is complex. A system of nerves runs the entire length of the gastrointestinal tract from the esophagus to the anus in the muscular walls of the organs. These nerves communicate with other nerves that travel to and from the spinal cord. Nerves within the spinal cord, in turn, travel to and from the brain. (The gastrointestinal tract is exceeded in the numbers of nerves it contains only by the spinal cord and brain.) Thus, the abnormal function of the nervous system in IBS may occur in a gastrointestinal muscular organ, the spinal cord, or the brain.

The nervous system that controls the gastrointestinal organs, as with most other organs, contains both sensory and motor nerves. The sensory nerves continuously sense what is happening within the organ and relay this information to nerves in the organ's wall. From there, information can be relayed to the spinal cord and brain. The information is received and processed in the organ's wall, the spinal cord, or the brain. Then, based on this sensory input and the way the input is processed, commands (responses) are sent to the organ over the motor nerves. Two of the most common motor responses in the intestine are contraction or relaxation of the muscle of the organ and secretion of fluid and/or mucus into the organ.

As already mentioned, abnormal function of the nerves of the gastrointestinal organs, at least theoretically, might occur in the organ, spinal cord, or brain. Moreover, the abnormalities might occur in the sensory nerves, the motor nerves, or at processing centers in the intestine, spinal cord, or brain. Some researchers argue that the cause of functional diseases is abnormalities in the function of the sensory nerves. For example, normal activities, such as stretching of the small intestine by food, may give rise to abnormal sensory signals that are sent to the spinal cord and brain, where they are perceived as pain.

Other researchers argue that the cause of functional diseases is abnormalities in the function of the motor nerves. For example, abnormal commands through the motor nerves might produce a painful spasm (contraction) of the muscles. Still others argue that abnormally functioning processing centers are responsible for functional diseases because they misinterpret normal sensations or send abnormal commands to the organ. In fact, some functional diseases may be due to sensory dysfunction, motor dysfunction, or both sensory and motor dysfunction. Still others may be due to abnormalities within the processing centers. One area that is receiving a great deal of scientific attention is the potential role of gas produced by intestinal bacteria in patients with IBS. Studies have demonstrated that patients with IBS produce larger amounts of gas than individuals without IBS, and the gas may be retained longer in the small intestine. Among patients with IBS, abdominal size increases over the day, reaching a maximum in the evening and returning to baseline by the following morning. In individuals without IBS, there is no increase in abdominal size during the day.

There has been a great deal of controversy over the role that poor digestion and/or absorption of dietary sugars may play in aggravating the symptoms of IBS. Poor digestion of lactose, the sugar in milk, is very common as is poor absorption of fructose, a sweetener found in many processed foods. Poor digestion or absorption of these sugars could aggravate the symptoms of IBS since unabsorbed sugars often cause increased formation of gas.

Although these abnormalities in production and transport of gas could give rise to some of the symptoms of IBS, much more work will need to be done before the role of intestinal gas in IBS is clear.

Dietary fat in healthy individuals causes food as well as gas to move more slowly through the stomach and small intestine. Some patients with IBS may even respond to dietary fat in an exaggerated fashion with greater slowing. Thus, dietary fat could--and probably does--aggravate the symptoms of IBS.

About the Author

For more information visit: <http://www.bowtrol.com>

Source: <http://www.serverforever.com>