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TREATING IRRITABLE BOWEL SYNDROME BY DIGESTIVE ENZYMES

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I have found a new relationship among Irritable Bowel Syndrome, Exocrine Pancreatic Insufficiency, EPI, and gallstones. By studying the symptoms of both gallstones and EPI on two groups of people, I realized that we can significantly reduce the bowel irritation by taking digestive enzymes before eating meals that contain large amounts of fat, protein, and carbohydrate. The research has been applied on a group of people and succeeded under specific conditions.

Keywords: exocrine pancreatic insufficiency, gallstones, digestive enzymes, malabsorption, and Irritable Bowel Syndrome.

Similar syndromes

Introduction

Most people who suffer from Irritable Bowel Syndrome are noticed to have clear symptoms after eating meals high in fat, carbohydrate, and protein. Symptoms like cramps, bloating and constipation are seen on them after the food reach their intestine, within nearly five hours from the time of eating. These symptoms have pushed me forward to discover the hidden facts of their causes.

When the pancreas—the main part for secreting digestive enzymes in the intestine—stops working effectively, many kinds of diseases will present, and EPI is a common one. Gallstones can block the movement of bile, a dark green to yellowish brown fluid produced by the liver that aids the digestion of lipids in the small intestine. Here in this paper, we are going to focus on the relationship between gallstones and EPI with the Irritable Bowel Syndrome.

I did an observation on two groups of patients who suffer from exocrine pancreatic insufficiency or gallstones to see the symptoms which they experience in their daily living, then I did the same observation on another group of patients who suffer from Irritable Bowel Syndrome. Both groups have been seen to share almost the same symptoms: Stomach pain, bloating, Excess gas, and constipation. Bloating is the most obvious symptom which can be seen clearly on people who suffer from EPI, gallstones, or bowel irritations. Symptoms such as dry hair and hair loss are clearly noticed on people who suffer from exocrine pancreatic insufficiency, gallstones, or bowel irritation. Vitamin D deficiency is found in a high percentage of patients who have Exocrine Pancreatic insufficiency or gallstones. A high percentage of Patients who suffer from bowel irritations are proved to have also Vitamin D deficiency.

The experiment

I have done an experiment on a group of people who have irritable bowel syndrome to confirm its relationship with EPI and gallstones. All that I needed in the experiment was food containing high amounts of protein, carbohydrate, and fat in addition to enzymes supplement at two different places, the first one has a sea view, whereas the second one in a closed room.

The experiment is simple enough to perform. First, I offered eggs and cheddar cheese (they both contain high amounts of fatty acids and protein, specifically the cheddar cheese) to three groups of patients in a closed room separately, the first group suffers from EPI, the second group suffers from irritable bowel syndrome, and the third group suffers from gallstones. I record all the common symptoms after 5 hours from eating time, and they were:

- 1- Bloating
- 2- Nausea
- 3- Pain in the bowel area
- 4- Constipation for nearly 36 hours

After one month from the first experiment, I have made the same experiment on the same groups of patients who suffer from irritable bowel syndrome. But this experiment has been done with taking digestive enzymes before eating by 7 minutes in the same room. The presented food was exactly the same, cheese with eggs. After 5 hours from the eating time, all the recorded side effect in the experiment has gone except constipation

The third experiment played the biggest part in proving the relationship of bowel irritation with EPI and gallstones. What I did in the third experiment is presenting for patients who suffer from irritable bowel syndrome the same meal which we provided in the first and second experiment, but in a different place. I took some patient to a place where there is a sea view, then I offered them eggs and cheese. After they finished eating, I waited for 5 hours, then I recorded just one side effect: constipation but in a too much lower degree. The reason behind this clear decline in the recognized side effects is due to the presence of the sea. When the human beings see any natural views, the parasympathetic nervous system will be stimulated and will help the body to get in a more balanced state, which we call "rest and digest".

During parasympathetic stimulation, the vagus nerve innervates the G cells to release Gastrin-releasing peptide- GRP-through the post-ganglionic fibers of the vagus nerve in the G cells. GRP will stimulate g cells to produce Gastrin that stimulates secretion of gastric acid.

Three basic stimuli that cause pancreases secretion: acetylcholine, cholecystokinin, and Secretin. The first stimuli is activated by the parasympathetic vagus nerve, and the third stimuli is activated indirectly by the parasympathetic nervous system (through the stimulation of the G cells as described above). The second stimuli, cholecystokinin, is secreted by the duodenal and upper jejuna mucosa when the food enters the intestine, and it's not related too much with the parasympathetic nervous system, The first two of these stimuli, acetylcholine, cholecystokinin, will stimulate acinar cells of the pancreas causing production of large quantities of digestive enzymes¹.

The stimulation of the postganglionic neurons (parasympathetic nerve) will enhance the activity of most gastrointestinal functions²

By Observation through three experiments, the main cause of the huge reduction in the side effects of eating rich fat, carbohydrate, protein meals for people who suffer from bowl irritation is due to the increase of the secreted digestive enzymes, which will help the body in digesting foods

Conclusion

In the end, I recognized that EPI and gallstones have a direct relationship with irritable bowel syndrome, and we can notice the similar symptoms in both syndromes. Irritable bowel syndrome could be treated by taking digestive enzymes supplements because the undigested food that resulted from the lack of the digestive enzymes in the intestine is the cause of bowel irritation and can lead to malabsorption because of the insufficient digestion.³

¹ Textbook of medical physiology Guyton and hall, page 800, regulation of pancreatic secretion, chapter 62.

² Textbook of medical physiology for Guyton and hall, page 775, autonomic control of the gastrointestinal tract, chapter 64.

³ Netter's illustrated human pathology, malabsorption syndrome, page 114