

Gastroparesis – the Slow Stomach

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Gastro = stomach and paresis = paralysis. Gastroparesis, (GP), is a condition in which the stomach muscle doesn't work properly, due to weakness and/or nerve damage. Instead of grinding the food and gradually injecting it, one muscular contraction at a time, into the small intestines, the GP stomach depends mainly on acid and digestive enzymes to break food down and on gravity to empty the contents. This results in delayed emptying and poor digestion.

Causes

Gastroparesis is most common in insulin-dependent diabetics. Elevated sugar over years can damage blood vessels and nerves which control the muscular responses of the digestive system. Other causes include:

- Surgery or radiation therapy in the abdominal or chest area
- Connective tissue disorders such as scleroderma
- Neuromuscular diseases such as Parkinson's
- Metabolic disorders such as hypothyroidism
- Anorexia and bulimia
- Autoimmune diseases such as fibromyalgia
- Many drugs can slow gastric emptying, including narcotic pain medications, antidepressants, calcium channel blockers, antacids that contain aluminum hydroxide, some hypertension medications, antispasmodics, and the psychiatric drug, lithium.
- A number of cases occur following acute viral infections.

Symptoms

Most symptoms result from the residual food present in the stomach which never empties completely. This frequently causes early satiety, a feeling of fullness shortly after starting a meal. Burping, nausea, acid-reflux, and bloating are also common.

Discomfort is typically worsened by foods high in fiber such as raw fruits and vegetables, high fat food and drinks, or carbonated beverages. Vomiting of undigested food often occurs several hours after a meal.

Complications

The retention of food in the stomach can result in diminished intake. Poor appetite coupled with reduced absorption of nutrients can result in weight loss and malnutrition.

The healthful bacteria in our digestive tract normally keep harmful microorganisms in check, but when food ferments in the stomach, this disrupts the balance and explosive growth of bad bacteria can occur. Taking a good probiotic can help protect against bacterial overgrowth and also promotes better digestion and absorption.

Foods containing fiber may cause blockages because the indigestible fiber tends to remain in the stomach too long. A solid mass of undigested matter, called a bezoar, can form, resulting in nausea, vomiting, and pain. In such a case, it may be necessary to use endoscopic tools to break the mass apart and remove it.

Since gastroparesis makes stomach emptying erratic and unpredictable, blood sugar in diabetics may be alternately high and low. Poor glucose control can worsen diabetes which in turn, tends to increase symptoms of GP, a viscous cycle.

Treatment

Even when stomach emptying is significantly impaired, liquids and foods that become liquid at room temperature (pudding, yogurt, ice cream) are usually well tolerated. With a very soft or pureed diet, most individuals can live a relatively normal life.

The GP diet is low in fiber and consists of thoroughly cooked fruits and vegetables, fish, chicken, yogurt, refined starches, soups, and nutritional drinks such as shakes and smoothies. Berries, dried fruits, coconut, cabbage family vegetables, and vegetable peels are most hazardous for forming bezoars.

Fatty foods are generally best avoided as they slow digestion, but when an individual is underweight, small servings of rich nutritional drinks may be helpful for increasing calories. Six to eight small meals a day helps to avoid the feeling of excessive fullness that plagues many people with gastroparesis.

For those whose appetite wanes later in the day, more solid foods are recommended in the morning with lighter meals or liquids in the afternoon and evening. Sometimes lying on the right side after meals can aid gravity in emptying the stomach.

A number of medications are available that can be helpful for stimulating the stomach to contract more frequently and vigorously. They should be taken 20-40 minutes prior to meals. These include metoclopramide, bethanechol, and erythromycin.

Summary

Gastroparesis can be a life controlling problem, but with medication and proper diet, it is normally well controlled. New forms of treatment involving drugs, electrical stimulation via a stomach pacemaker, and surgery are being developed. The research is promising and new therapies may be just beyond the horizon.

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