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GASTROENTEROLOGY AND HEPATOLOGY

CONSTIPATION

Constipation commonly refers to bowel movements that are infrequent, are of hard consistency or are difficult to evacuate. Normal bowel habits may vary from every 2nd or 3rd day or less, to several times per day, but if symptoms occur medical attention may be appropriate. Constipation is common, may start at any time, and the cause is generally not clear. Changes in diet, living situations, emotions or travel may be factors, but often none can be found. Certainly a change in bowel habit should be evaluated, but rarely is any serious condition found as a cause.

Constipation typically arises either from a sluggish colon, referred to as "colonic inertia", or an abnormality of rectal function. These two conditions are approached and treated differently. Colonic inertia is by far the more common, and is treated by using non-stimulating laxatives. Certain anorectal disorders may be treated with biofeedback and others may require surgery. One can differentiate these two types of conditions by a "Sitzmark" X-ray study. A capsule with 20 or more tiny metallic markers is swallowed on day zero, and on certain days plain x-rays of the abdomen are taken to locate these markers. If they are seen spread over the entire colon, this suggests colonic inertia. If they are concentrated all in the rectal area, this suggests an ano-rectal defecation disorder. In the latter case, one can perform an ano-rectal manometry study or x-ray the defecation process with an "evacuation proctogram" which is an x-ray taken during defecation. The manometry is a simple test involving placement of a balloon in the rectum, with the testing of a number of functions including the ability to evacuate the balloon, measurement of the pressures generated in the rectum, as well as the sensitivity of the rectum to distention. The proctogram or "defegram" reveals the anatomical changes that occur during defecation, and can diagnose certain pathological conditions.

The treatment of colonic inertia is conceptually simple, but achieving success with a tolerable regimen by trial and error takes considerable patience of both patient and physician. Although stimulant laxatives are quite effective in the short run, they should be avoided because they lead to resistance with the need for ever increasing doses until they don't work at all. These include senna, cascara and laxative or herbal teas. One may need to use a number of milder agents simultaneously, such as stool softeners, bulking agents, mineral oil, and non-absorbed sugars, such as lactulose or sorbitol. Patients often state, "I tried that but it didn't work". One must try these agents again in combination with other preparations, and communicate with the physician until a reasonable regimen is found to work. When patients are already using stimulant laxatives, non-stimulant agents must first be added, then efforts made to taper slowly off the stimulant laxatives. It should not be surprising that it takes a number of non-stimulating agents to supplant one stimulant laxative.

Using bulking agents is effective because bulkier stool with wider diameter is easier for the colon to propulse. Psyllium is an excellent bulking agent and should be used in enough quantity, perhaps one tablespoon, and at least twice a day, though some patients find once daily sufficient. Mineral oil is an excellent stool softener, and softer, more moist stool is also easier to propulse. Kondremul is a formulation of mineral oil and a bulk called Irish Moss, mixed with some marshmallow for flavor. It is typically taken as 2-3 tablespoons at bedtime. Miralax is a polyethylene glycol powder that when mixed with water, makes the water non-absorbed, and thus able to reach the colon to soften the stool. This is used as one-half capful or 17 grams mixed with 6-8 ounces of water, taken each morning. It can be increased in quantity and frequency, up to 34 gm twice daily, or more. Lactulose is a non-absorbed sugar that is metabolized by bacteria in the lower intestine, with production of water leading to

softening of stool and better evacuation. These agents and others may be combined to achieve success while avoiding stimulant laxatives.

If one has not had a bowel movement for a few days and needs an effective "cleanout," Milk of Magnesia or concentrated magnesium sulfate, is a mild laxative that pulls water into the colon, leading to a soft stool. It can also be used in smaller doses on a daily basis for maintenance. One dose of Fleet's Phosphosoda can also be used for a more aggressive clean out.

A common defecation disorder is "anismus." There is a muscular sling that extends from the pubic bone around the rectum, the pubo-rectalis muscle. It is normally contracted, keeping an acute angle to the rectosigmoid area presenting a barrier to defecation. With efforts at defecation this muscle relaxes, allowing a straight tube to form through which stool passes. With anismus there is a paradoxical contraction of this muscle causing a functional obstruction to the stool outflow. Biofeedback is very effective in relieving this problem, and patients can improve significantly after a few sessions.

The treatment of constipation requires numerous adjustments to a regimen along the way, but regular communication with the physician is crucial to achieve success. A very frustrating situation for the physician is to develop a regimen with a patient, see the patient a few times, then not see them again for 6 to 12 months, when the patient returns and says, "I was OK for a while, but then it stopped working". Success requires a firm commitment on the part of the patient, both to follow the physician's directions, and communicate with him/her.

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