
5. Gray, S. J.: Personal communication.

**Primary Constipation: Treatment**

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**INTRODUCTION**

A SIMPLE classification of constipation and a rational program of treatment is the subject of this paper (1). The average physician, wishing to increase his knowledge of the subject, quickly becomes aware of the confusion which exists and soon discontinues his investigation. As an easy solution of his problem he prescribes some proprietary remedy which for a time produces results, and thus creates a nationwide market for oils and laxatives, the so-called health foods, and other products of purely commercial manufacturers.

A careful analysis of our case histories shows that constipated patients fall naturally into one of three groups. First, the group where the condition is not caused by disease. This is the principal theme of our paper and is referred to as Primary Constipation. Second, the group where the condition is caused by disease. And Third, the group where the condition is not caused by disease, but where it is aggravated by disease. The last two are to be considered adjunctive to our theme, and should be discussed separately, each under its own text, at some future time.

The diagnosis of Primary Constipation presupposes a most careful history and examination. It hardly seems necessary to emphasize that any condition which may tend to irritate the anal ring, thus causing the sphincter to contract abnormally, is a definite factor in the cause of constipation (2). Anal fissure, hypertrophied papilla, repeated external thrombosed hemorrhoids, and protruded or protruding internal hemorrhoids are frequent offenders. It should be remembered, too, that simply removing gross lesions may not mean that the spastic anal sphincter will relax; a moderate dilation may be necessary (3). Regardless of the age of the patient, pain (however mild or severe), blood or pus (whether just a trace or in copious amount), mucus in perceptible quantity, or sudden change in bowel habit indicate the presence of pathology. X-ray diagnosis of spastic or atonic bowel may be ignored (4).

After necessary studies have been made and all organic trouble has been eliminated, we are justified in making a diagnosis of Primary Constipation and proceeding with treatment. Adequate fluid intake, adequate food intake, adequate saline intake, chemotherapy and expert supervision are the necessary armamentarium.

**DISCUSSION**

Advice to patients to drink six to ten glasses of water daily has proven a failure in such a high percentage of cases that even the usually conservative editorial department of one of our largest and most respected journals recently wrote disparagingly of its efficacy (5), and Alvarez thinks he has seen it do actual damage (6). The truth is that we have in water a most useful adjunct in the treatment of constipation (7), but have failed to use it to the best advantage.

In the first place, it renders the bowel content more fluid, and therefore more easily pushed along by peristaltic action. It is this property, generally recognized, which has in the past motivated the physician when prescribing fluids. Poor results have followed because one glass of water taken at half hour or hourly intervals disappears from the bowel so quickly in many cases that only the proximal portion of the fecal stream is affected. Proof of this is frequently observed in the hard, dry, impacted feces palpable in the rectum, in spite of the fact that the individual is drinking quantities of water daily. On the other hand, the patient may not absorb rapidly, and the consequence is a continual arrival of liquid in the rectum and a resulting diarrhoea (8).

The second property of water is that it aids in providing bulk and thus stimulates peristalsis (9). This is a less important action, and when given by mouth, we cannot depend upon it, because the fluid is in most cases quickly absorbed. Foods which form bulk are more dependable.

The third and most important action of water used in the treatment of constipation is its property of carrying everything with it, if a sufficient quantity is applied over a short period. In other words, the force produced is in direct proportion to the elevation of the reservoir supplying the liquid and the quantity available. It varies inversely with the size of the lumen of the conveyer and the amount lost on the way to the rectum.

Unfortunately, as previously indicated, individuals
vary in their ability to absorb fluids from the bowel, so that no definite quantity can be established as just the proper amount needed in every case. We have found, however, that four ordinary glasses of water, or approximately one quart, given in divided doses before breakfast, over a period of not more than one-half to one hour, is usually sufficient, and that in many cases only one, two, or three glasses are necessary. We would, therefore, make this the first requirement in the treatment of constipation.

Patients are frequently astonished that they should be asked to drink so much water before breakfast, but any sensation of fullness is absent or quickly disappears, and they are happy when prompt and satisfying results are observed. Indigestion or flatulence, and, of course, nicturia, do not occur. As Alvarez has observed, diarrhea may develop (10), but that is not a problem since it means only that too much water has been taken, and the condition is corrected when the intake is reduced. We simplify the intake problem so that little or no extra time or effort is consumed in performing the morning toilet. The patient is told to take the water from the cold faucet, inasmuch as many hesitate to drink from the ordinary warm storage tank, and any effort to obtain freshly heated water is time-consuming and after a short while becomes a burden. Also, fluids leave the stomach immediately (11) and temperatures are quickly equalized (12), so that for our purpose cool water is probably as efficacious as warm water. It is emphasized that all the water should not be taken at one time, because few would follow such advice and fewer still would continue it for long.

The second and very important requirement in the treatment of constipation is the adequate use of residue-producing foods (13). To obtain this, the patient is instructed to eat at least two cooked vegetables daily. It is emphasized that this means true vegetables, and any of them with the exception of tomatoes, potatoes, salads, and vegetable soups. Tomatoes are excluded because of the fluid content, and potatoes because they are used as additional bulk. Salads are excluded because most of them are cold and their bulk content likely to be limited by a small serving. Vegetable soups are excluded because certain individuals will substitute them for an adequate vegetable serving. In other words, salads, tomatoes, potatoes, and vegetable soups must not be substituted for cooked, leafy, or fibrous vegetables. When the patient understands clearly about eating the two vegetables twice daily, he is then told to eat anything and everything in addition that he desires.

A third and very useful adjunct in the treatment of constipation is additional amounts of ordinary table salt (NaCl) (14). Alvarez suggested that if one-quarter teaspoonful is added to a glass of water before breakfast, gratifying results are often observed (15). In the severely constipated patient we always advise its use, and results are pleasing. The fact that an unlimited intake of NaCl is contraindicated in some diseases should not prejudice us against its use in normal individuals. It should be obvious that certain people require more salt than others, and that its use simply as a seasoning for foods may be insufficient in some cases. We have been under the impression, too, that the so-called "constitutionally inadequate" individual sometimes obtains more benefit than is reasonable to explain simply because regularity in bowel habit is established, and have wondered if there could be some relationship between this improvement and the increase in well-being frequently seen when salt is given in large amounts to the person afflicted with Addison's disease.

The fourth step in the treatment of Primary Constipation, and the one having fewer factors in its favor, is the use of (1) laxatives, (2) purges, (3) lubricants, and (4) bulk-producing products—in other words, chemotherapy. Laxatives and purges are mentioned only to be condemned. The so-called bulk-producing products have at least three disadvantages: some seem to be irritating, all soon lose their effectiveness (16) and, most important of all, they supply no more bulk than can be obtained from a sufficient quantity of nourishing vegetables. Of the lubricants, mineral oil by mouth seems to be the least objectionable (17). It is inexpensive. The individual is rare who enjoys taking it, and since it is intended as an immediate remedy, the physician is assured of his patient's cooperation. Given by rectum, it must be injected by means of the filthy bulb syringe or the equally filthy enema tip, terminating eventually in the infected, fissured, excoriated anal canal, with the attendant spastic or patulous anus so frequently seen in the proctologist's office. There is also the likelihood of habit formation, which produces the patient who never goes through the day without injecting a little lubricant so that he may pass a nice, soft stool.

We prescribe mineral oil in tablespoonful doses, when needed, to be taken by mouth before meals, and never at bedtime. It is needed before each meal if there has been no previous movement that day. The indications are exact. It is not taken before any meal which has been preceded by defecation. Its action has been questioned (18) but it seems logical to assume that massage of the bowel by movements of the body, and the upright position, favor its mixture with the fecal stream and passage distally. We have observed that a smaller dose, taken before meals, will accomplish the same result as a larger dose taken at bedtime. Leaking and too frequent movements do not occur unless too much oil is being taken; and the amount must be cut down until only one or two movements result. We have seen patients who complained of leakage accompanied by fifteen or sixteen bowel movements daily without fecal material. In nearly every case it is clear that they are taking oil in excess of the required amount, as evidenced by the fact that the lower sigmoid and rectum are clean, and that