TREATMENT OF CONSTIPATION *

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We are told constipation is either spastic or atonic. This is true as a pathological classification, but should not be allowed to mislead us when it comes to our treatment and clinical relation to this malady. Atonicity is in all probability a secondary condition following spasticity. Both may be present in the same colon at the same time—spasticity in the descending colon and atonicity in the coecum. *Both are the results of long-continued irritations and inflammations; therefore, curing the irritation or inflammation will cure also the constipation, be it either spastic or atonic.*

Etiology—As a producer of irritation to the colon, the *cathartic habit* easily takes first rank. Not only the laity, but many of the profession as well, seem to know of no other means of obtaining bowel movement than "another cathartic." Among cathartics, salts of all kinds, with their ever-present osmotic action, are probably more injurious than all others. Each dose deepens the malady it is given to relieve, and convinces the patient the more strongly that nothing short of "dynamite" will do them any good.

The indiscriminate use of bran and other irritating foods is another great cause of constipation. Vaunted by health lecturers and magazines, advertised by commercial food concerns, and many times by the doctor as well, it continues to be put into an already inflamed tract where its irritation, although producing bowel movement for awhile, only serves to deepen and increase the inflammation which is the basis of the patient's malady.

The enema is nearly as bad a criminal as the cathartic. It washes away normal secretions and introduces a foreign substance to further irritate the bowel and rectum. In addition to its tendency to produce pathology, it becomes a mental crutch to the patient and is, therefore, to be condemned.

The *mental attitude* is no small factor in the cause of constipation. The laity do not understand that the colon is made to be a garbage-can and that its walls and mucous surfaces are prepared by nature to handle the fecal matter without harm to themselves or the body. They think only of the "harm" and "injury" coming to them from the retention of such matter as the feces. Naturally, they look upon the function of the tract from the mouth to the anus as one of absorption, and when constipated they conjure up in their minds wonderful mental pictures of the condition they are getting into by lack of bowel movement. All this results in a cathartic more often than not, and many times it is by a prescription of the doctor. The patient continues to "beat nature to it" with a cathartic until *they get firmly fixed in the mind an idea that their bowels will not move of themselves.* They accordingly give up hope and go on with cathartics and its resulting train of colitis, nerves, and poor health. That their mental state is a vital factor in causing the trouble, I do not for a moment doubt. I have an intimate professional friend who goes to the toilet immediately with a loose, watery stool the moment an O. B. call arrives over the phone. If the mental state can thus result in stimulation, why can it not conversely inhibit it as well?

Unbalanced dietary is a cause of constipation. The effect of this condition is seen most often in infants, but its results are often very noticeable in adults as well. It always results in portal congestions, and eventually in colitis.

Reflex irritations, as a gall-bladder, an appendix, an ulcer, or pelvic conditions are, of course, prolific causes of constipation and must all be sought out and corrected.

Irregular habits, and failures to promptly answer the call to evacuation, soon result in a loss of the "call" and eventually in inflammation of the pelvic loop, and should be named as causes of constipation. This is the rectal constipation, or dyschezia, of Hertz.

Unusual stress, or any strain that is beyond the ability of the patient to carry indefinitely, either physical or mental, is a great cause of constipation. The twentieth century business and social life are, therefore, a cause to those who are unable to bear it.

Symptoms—A proper understanding of the way symptoms are produced is essential to successful and intelligent treatment by the physician. There is a large school that still believes in the toxicity of the constipated patient, and who talk about being "bilious" and "the absorption of poisons and toxins." There is, however, an increasingly large group who are accepting the teachings of Taylor, Adami, and others, that symptoms are caused by direct irritation of nerve endings and by distention of the gut. These teachings are based on thorough experimentation, and a study of the writings of the two schools will, I believe, convince all who approach it with an open mind.

The symptoms of constipation can be and often are relieved by a bowel movement, even before the patient arises from the toilet seat. As Hertz says: "It is within the personal experience of most people that the commonest symptoms of slight constipation—a dull headache and a vague discomfort in the abdomen, lumbar and perineal region—disappear instantaneously or at least a few minutes after the bowels have been well opened. Though the lumbar and perineal discomfort may be due to the direct pressure of the fecal accumulation on various nerves, the headache must be produced reflexly, as it would be quite impossible for a symptom of auto-intoxication to disappear so rapidly."

If toxicity caused these symptoms, they could not be relieved so quickly. Alvarez, in meeting this argument, says: "We know that with normal kidneys a man will take two hours to get rid of perhaps 65 per cent of a dose of phenolsulphonephthalein injected into his muscles. The layman appreciates this point best when he is reminded that after eating asparagus it takes from twelve to fifteen hours to excrete most of the aromatic substance that is noticeable in the urine."

A toxicity may be caused from bowel condi-

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tions, but most often happens from diarrhea, instead of constipation.

Vertigo, like headache, is one of the famous symptoms of constipation which the proponents of "auto-intoxication" point to as being impossible of arising reflexly. It is interesting to note regarding this that Leube reports a case in the German archives of Clinical Medicine, of a man who was a great sufferer from vertigo when constipated, always obtaining relief through a cathartic immediately. Upon examination, the patient complained of severe vertigo during the digital examination of his rectum.

That the classical symptoms of "auto-intoxication" can be reproduced by direct irritation of rectum and colon has been proven time and again. Donaldson, in his interesting and recent article in the J. A. M. A., packed the rectum with cotton pledgets soaked in petroleum and dusted with barium, producing after three hours' retention, return of the old symptoms suffered under constipation, viz., less ability to work, headache, dullness mentally, dizziness, etc.

Treatment—Symptoms, therefore, that are caused by the direct irritation and distention of an inflamed gut will, of course, be relieved by a curing of the inflammation and a removal of the irritation. Given an inflammation on an external surface of the body, it is always healed by a protective dressing and a removal of irritations. The same laws of nature which heal an external inflammation will also heal an internal inflammation. We therefore put over the inflamed mucosa of the tract a "protective dressing" by the use of an intestinal powder which clings to the walls. By stopping fermentation and taking out the bulk from the diet, we remove irritations. When this is successfully done, constipation is cured, be it spastic or atonic. The treatment outlined in this paper will not appear rational to those holding the old ideas of "auto-intoxication," but having accepted the teaching that the symptoms of constipation are due to direct irritation and distention of the gut along with reflexes arising from the same irritations, this treatment, then, appears in the most rational light possible.

The *removal of bulk* from the diet is the one great means of reducing irritation to the colon. The diet must be reduced to liquids of no residue and kept thus until bowel movement has been accomplished. After this the diet can be very gradually and carefully increased. However, all tenderness over the course of the colon and abdominal distress of any kind must be gone before there is much increase in the bulk allowed in the diet. The following is a tentative grouping through which the patient can be put in the treatment of constipation. This suggestive grouping should take approximately six weeks' time to cover in treatment; in severe cases, longer.

Group A—Boiled milk, chocolate, cocoa, hot malted milk, broths, gruels, soups, bouillon, ice cream, sherbet, cereal coffee, Kaffee hag.

Group B—Eggs, raw, poached or soft boiled; yolk of hard-boiled egg with mayonnaise, cornstarch pudding, cream of wheat, rice sago, custard, gravies of any kind, angel food cake, whipped cream, cottage cheese.

Group C—Toast of white flour bread, butter, soda crackers, oatmeal, cornmeal, rice, barley, or any whole cereal, macaroni, spaghetti, vermicelli.

Group D — Prunes with the skins removed, peaches, potatoes, baked or mashed; pumpkin or squash custard, dry lima beans with skins removed, any vegetable that can be pureed, as peas, corn, spinach, etc., vegetable gelatines, quince jelly.

The patient should be fed every two hours in the beginning, gradually increasing the interval as stronger food is given, until the patient is once more eating the customary three meals a day.

Medicinal treatment is mainly of a negative character. In other words, all cathartics are stopped entirely and the patient impressed that they must not be taken again except in great emergency. Enemas, whether medicated or plain, are also stopped, as they are a source of irritation. The intestinal powder should be given every three hours in the beginning, especially while on Group A. It not only provides bulk that is non-irritating while on a non-residue diet, but it is also very soothing and healing to the irritated mucosa and nerve endings. It should be gradually reduced as bulk is put back into the diet. The prescription is as follows: ℞—Bismuth subnitrate, calcium carbonate, calcium phosphate, aa oz. 1. Sig., one teaspoonful every three hours in water.

An oil enema of cottonseed oil (3 ozs.) should be given every night at 8 or 9 o'clock. This is very soothing to an irritable rectum and pelvic colon, and serves the purpose of keeping the fecal mass from becoming hard and scybalous. After a time the oil enema may be discontinued, using it only when necessary; that is, when the movement is hard and dry, or when there is no movement at all. In the case of no movement, a pint enema may be used to cleanse the rectum just before taking the oil. A larger amount should not be used, because it will pass up into the irritated colon. The oil-retention enema, along with regularity of habits and effort at evacuation following meals, are usually sufficient to relieve all cases of dyschezia.

Heat to the abdomen is a very essential matter in the treatment of every patient. Fomentations should be given every three hours, each set lasting fifteen to twenty minutes. A better result is thus obtained than is the case in continuous applications of heat. The applications should be short and intense.

Rest is of vital importance, especially to the exhausted patient. You are constantly importuned by patients to relieve their constipation and permit them to keep on at work, or at least not to go to bed. It is necessary to be off the feet to lessen mesenteric congestion and stop the constant massaging of the colon by the psoas muscle until such time as the irritable colon has sufficiently healed to permit it to continue its work regardless of these two things.

Exercise, instead of rest, is beneficial only to those patients suffering from dyschezia. These patients need activity, and the massage to the

colon of the psoas muscle incident to exercise. They have no inflammation in the colon, neither spastic nor atonic, and all normal colons are benefited by the right amount of exercise. Having lost the "call" to evacuation, they are assisted in regaining it by exercise. Teaching the patient to regain the lost "call" is an important part of the treatment of rectal constipation. It is accomplished by regularity in habits. Effort at evacuation should be made following each meal, since the taking of food into an empty stomach is the strongest known stimulation to peristalsis.

Psychology — As was mentioned under "Etiology," psychology can inhibit as well as stimulate intestinal activities. Patients just becoming addicted to cathartic and enema habits should have explained to them the A B C of colon physiology, thus dispelling from their minds fears of toxicity, fecal impaction, biliousness, etc. Their minds will dwell upon the subject, and it is best for them to think along correct lines. After bowel movement has been established, they will cease to dwell constantly upon it.

The patient should be impressed with the fact that their bowels will move without assistance when we get out of the way with irritations and causes of inflammations; that is, patients need help to get their thoughts into correct channels, for their thoughts are undoubtedly of great help towards success in this treatment.

SUMMARY

1. Cause of constipation is the same in both spastic and atonic cases—i. e., inflammation in the gut.
2. Curing the inflammation will therefore cure both types of cases.
3. Treatment is therefore identical in either case.
4. Treatment consists in stopping cathartics, enemas and irritating foods. Giving heat to abdomen, intestinal powder, rest in bed, and a gradual return to bulky food after the colon heals.

Doctors in Congress—Each State of the Union has two Senators. There are two doctors in the United States Senate. These are Senator Ball of Delaware and Senator France of Maryland. Senator Spencer of Missouri is a lawyer with an honorary degree of M. D. Senator Ball's term will expire in 1924, while the commission of Senator France will expire in 1923.

In the House of Representatives there are nearly four hundred and fifty members. Six of these are graduates of medical schools. Two of the six are from the State of New York—Congressman Kindred and Congressman Volk. Delaware, Louisiana, New Jersey, and Washington are the other four States represented by men with M. D. degrees, these being, respectively, Representative Layton, Representative Lazaro, Representative Olpp, and Representative Summers.

Representative Woodruff of Michigan is a graduate of the department of dentistry of the Dentist College of Medicine; Representative Edmonds of Pennsylvania is a graduate of the Philadelphia College of Pharmacy.

One and one-half of one-tenth of 1 per cent of the total membership of the two houses of Congress is small representation for the great medical profession of the United States.—Bulletin of the A. M. A.

EDUCATIONAL STANDARDS IN PHYSIOTHERAPY *

By RAY LYMAN WILBUR, M. D., Stanford University

It is a pleasure to have this opportunity to say something in favor of the physiotherapist, since I have the feeling that by proper standards (I use the term standards with trepidation in regard to the education of these workers) he or she can meet an urgent need.

When we speak of educational standards we recognize first, that we must have the fundamental standard and second, the technical standard. The fundamental side refers to an understanding of the basis of the practice of the profession, whatever it may be—and the technical part has to do with the knowledge and ability to apply the various forms of treatment.

Now, I think that we have in this present field of physiotherapy certain elements of danger, because of the emphasis so often put on technique without basic fundamental knowledge. In the present Medical Practice Act of the State of California an effort was made to delineate a fundamental training for both physicians and so-called drugless practitioners and to make a separation, at a point where treatment began, between those giving drugs and using the knife and those using the physical therapeutic agents.

This is very important, because we are so apt if we do not know a subject well to be very sure of ourselves in methods of known procedure. The more we know, the less sure we become. Consequently, we have to be very careful in this field not to develop a rather sloppy attitude. We are apt to start off and do just what we did in the training of nurses, that is, teach therapy without the underlying fundamentals.

The one primary essential is to have an idea as to the cause of the patient's disorder. Chester Rowell stated recently that you can always distinguish the quack from the true physician, because the true physician tries to find out what is the matter, while the quack is inclined to take the diagnosis made by the patient. I think this is absolutely sound. One attempts to get at the real facts, and the other is satisfied with only treating symptoms. These can wisely be treated for the patient's comfort of body and ease of mind when the factors causing them are being studied or are understood. In dealing with the sick, diagnosis is primary. Particularly in dealing with the subject of physiotherapy, where our problem is the relief of symptoms, it is important not to fail to have this background of the patient's condition.

Now, what are the first things to be done by a person who is preparing to practice physiotherapy? He or she must know something of biology. We can not deal with life unless we know what life is. Some form of biology must be studied, whether this is zoology or botany or both. Then, there must be knowledge of anatomy. It does not have to be the minute knowledge required in the practice of

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