THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LIV.

THURSDAY, JULY 31, 1856.

No. 26.

SUGGESTIONS ON THE TREATMENT OF DYSENTERY.

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[Communicated for the Boston Medical and Surgical Journal.]

No specific treatment can be laid down, which shall be applicable to all cases of dysentery, because under that name is included a great variety of cases, differing according to individual circumstances and to the epidemic constitution. Dysentery is practically very different in the mild sporadic form in which we usually meet with it in New England, from what it is when epidemic here. Again, it differs very much in form in temperate latitudes, and within the tropics. In the tropics, it is often a concomitant of hepatic disease, its cause or its effect; and there, and in malarial regions, we find it complicating periodic fever. It is no farther a different disease in these several regions, than all acute diseases are different, and partake more or less of the nature of the respective endemic tendencies of the various zones and different geographical regions. This connection, however, with other diseases, will of course very much modify the treatment. And hence that treatment which is effectual in one region may be entirely inapplicable to another. The geographical and meteorological conditions of the whole of New England are sufficiently similar, to render any observations which may be made on the subject of treatment appropriate everywhere within these limits; and it will only be necessary to consider the disease in the varying degrees of severity in which we meet with it here from year to year, unattended with the complications to which it is liable elsewhere.

There are many years when dysentery occurs in only a few mild cases among us, and yields completely to a cathartic dose of castor oil or other mild purgative. It is not always so, however. Small tracts of country, including several contiguous towns, now on the seaboard, now in the interior, are visited with it in an epidemic form of a much more serious character, so as to make it a prominent item in the bills of mortality. Probably the treatment most generally adopted by practitioners at the present time is chiefly by mer-

cury and opium, with a more or less frequent use of cathartics. Some physicians give a cathartic at the commencement, and then put the patient upon the steady use of calomel and opium, with a view to the establishment of the specific action of the mercurial. Others confine themselves entirely to opium. I believe the treatment formerly most usual at the Massachusetts General Hospital was with opium alone, or in combination with the acetate of lead. This was in 1843. I recollect very well the horror expressed by an estimable physician, now dead, who then attended the Hospital, at the idea of applying cathartic medicines (irritants) to a mucous membrane in so serious a state of inflammation as is that of the colon in dysentery.

Sydenham, who saw the disease when it prevailed with fearful severity, carrying off from one thousand to four thousand persons in London annually, looked upon it as of a specific nature, not a simple inflammation. "A fever, turned inwardly upon the bowels. By means of this fever, the hot and acrid humors contained in the mass of the blood, and irritating it accordingly, are deposited in the aforesaid parts through the meseraic arteries."—(Sydenham.) "That it is a specific fever, and not merely a local inflammation, in many cases at least, we have convincing proof in every epidemic of the disease. We find persons suddenly attacked with inflammation of a great part of the large intestine (indicated by the extent of tenderness), and with constitutional symptoms of severity corresponding to the extent of the inflammation. And we also see cases of persons struck down from ordinary health with the most violent symptoms, and with prostration quite out of proportion to a simple phlegmasia. Like scarlatina and periodic fever, it takes sometimes the general character of "congestive fever" in malarious regions—well described by Bartlett—and resembling so much, in some instances, the ordinary fatal cases of Asiatic cholera. Such a case was admitted to the Mass. General Hospital (in 1842, I think). A young man suddenly attacked with dysentery, was collapsed from the first, or within a few hours of the first symptoms, and continued to exhibit all the algid symptoms which we see in the extreme depression of the circulation in cholera, and died within forty-eight hours of the attack, exhibiting after death reddening, thickening and minute superficial ulceration of the whole of the large intestine, from ileo-cæcal valve to anus. And Grisolle, in his *Pathologie Interne*, says: "dysentery is certainly an inflammation; but if we reflect on the nature of the symptoms, on the causes which produce it and the possibility of its contagion, we must class it, with some authors, among specific phlegmasiæ." Whether or not we agree with those who believe in the possibility of its being communicated by contagion, we cannot overlook the other evidences of its being a general rather than a local disease. One of these evidences is the total failure of local treatment in many cases.

Our absolute knowledge of dysentery is reduced to this: that it is characterized by inflammation of the large intestine, beginning

in the mucous membrane, and usually at the lower extremity of it, and including more or less of its whole extent, sometimes limited to the portion first attacked, in other cases spreading gradually upward. That it is attended with local and constitutional symptoms, of severity usually commensurate with the extent of the inflammation, but also much influenced by the prevailing character of the epidemic, or what Sydenham calls the "epidemic constitution of the year." That in cases of considerable severity it has a certain regularity of duration (as much so as pneumonia), which is not abridged by treatment; but that, in mild cases, judicious treatment, applied at the outset, is effectual in cutting short the disease, where without medical aid it would have continued for a longer period, and grown more serious.

What the whole difference is between the mild and the severe cases it is presumptuous to undertake to say. Whether there is a specific character to the more severe which is wanting in the mild, or in what the difference consists, cannot be usefully discussed in the present state of our knowledge. In smallpox, the type of contagious diseases (I am not speaking of dysentery as contagious), we find the poison communicated as readily by a sporadic case as during the height of an epidemic. Dysentery resembles specific fevers in being much influenced by the epidemic condition. It differs from them, inasmuch as it is often cured by treatment directed to the local lesion. Thus, in typhoid fever, one of the best understood of all specific fevers, no treatment directed to the most prominent of the structural lesions, the ulceration of Peyer's patches, has any effect upon the course of the disease; while in dysentery it is far otherwise. Sydenham's treatment was as follows. "As soon as I was sent for, I bled from the arm, and ordered a paregoric for that night, and my usual lenitive cathartic for the next day."—(Sydenham.) This consisted of tamarinds, senna, manna and rhubarb. The cathartic was followed, after its operation, by an anodyne. Then, he says, "I order the cathartic to be taken every other day, twice more; the anodyne being given after it. And this anodyne I use on the days when there is no purging. It generally consists of the liquid laudanum, in doses of sixteen or eighteen drops." If recovery did not place after the three purges, Sydenham continued to use laudanum two or three times daily in large doses. He states also, that dysentery was successfully treated in the same manner at that time by an English physician in the Empire of Morocco. During other epidemics, Sydenham treated the disease by venesection, followed by the free use of bland liquids, and enemata of the same, without opium. He says, however, that the same treatment which succeeded one year, might fail in another—which will be confirmed by universal experience.

In the next century, we find the opinion of the nature of the disease to have changed. Cullen, attributing dysentery to constriction of the colon and retention of feces, avoided entirely the use of opium, and depended upon emetics and cathartics, with the

expectation of producing discharges of scybalous masses, which were then considered the chief cause of the griping, frequent stools and tenesmus. He, like Sydenham, enjoined absolute rest and a mild diet of whey and cream. Bloodletting he employed when the state of the circulation required it.

In the present century, the idea of constriction of the colon and the retention of fæces being the causes of the symptoms, is not held, as far as I know, by any intelligent physician. Pathological anatomy has revealed to us the existence of inflammation as the primary, continued and uniform condition in dysentery; and scybala are only found in the colon in occasional cases. That which Cullen supposed to be a spasmodic constriction is merely the muscular paralysis which we usually find in the neighborhood of an inflamed part.

At the present time, venesection is rarely used in the treatment of dysentery in New England. As in other acute diseases, it has fallen into disuse, from the unfavorable results that have followed its employment. All physicians whose practice extends over a period of forty years, are aware of a very great change in the use of bloodletting within that time. It is one of the great modifications in medical treatment which ought to indicate to the world that the medical profession is fully alive to the study of therapeutics, and that we are not wedded to a routine irrespectively of the changes that are constantly taking place in the general constitution of diseases. When bloodletting was more freely employed, no one who reads the works of physicians in the two centuries previous to this, can have any doubt that it was much more decidedly needed, as it was better borne, than it is now. This diminution in the sthenic character of acute diseases has been attributed to the influence of the epidemic cholera; for the change has taken place since its first invasion of Europe and America. But to whatever cause it is due, the fact is the same, that reducing remedies are not so well tolerated as formerly—a truth which physicians have discovered by their careful yearly and daily observation, and not through the spread of that specious system of quackery that has so often claimed to have opened the eyes of the medical profession to the light. Sydenham was fully alive to the varying conditions of diseases, and adapted his treatment to the character presented by the epidemic and the case under his observation. And Cullen says, “the means must be various.”—“At the beginning of the disease, when the fever is any way considerable, bloodletting, in patients of tolerable vigor, may be proper and necessary; and, when the pulse is full and hard, with other symptoms of an inflammatory disposition, bloodletting ought to be repeated. But, as the fever attending dysentery is often of a putrid kind, or does, in the course of the disease, become soon of that nature, bloodletting must be employed with great caution.” There are still, perhaps, cases in which venesection may be employed with advantage, but they are rare.

Mercury has been introduced as a remedy in dysentery during

the present century, and often employed with very satisfactory results. Hufeland, Grisolle, Symonds and Watson advise the use of mercury and opium, particularly if the disease does not yield to the bloodletting which the older of these writers, especially Hufeland, recommend as the first step in the treatment. It is noticeable that the latest of these English writers, Watson, and still later, Barlow, advise local bleeding by leeches to the abdomen rather than venesection—which accords with the necessities of the mild form of dysentery at the present day in England. The dysentery of New England is usually as far from being of a character to require active antiphlogistic treatment. In regard to the use of mercury, it must be said, that in many epidemics it has been eminently successful, and yet there are many physicians who have been very fortunate in the results of their treatment, who rarely employ it. It is certainly a remedy that we should dispense with when we can. As far as my own experience goes, I believe that the majority of the cases that come under our care can be treated as well without it. Some of those writers who recommend its employment, do so only in case the venesection and a laxative, or the use of opiates for several days, do not put a stop to the disease. Marshall Hall, and Bigelow and Holmes, do not advise its use at all, but prescribe leeches, opiates and opiate enemata. And Marshall Hall says, “all violent remedies do harm.”

Bloodletting, mercury and opium, as *exclusive* remedies for sthenic dysentery, no longer hold the favorable place in professional estimation which they once had. There are many judicious men who have held on to the old plan of purgatives, if not exclusively, and with the intention which led Cullen and his contemporaries to use them, at least in alternation with opiates, and in moderate doses and of mild character. And this mode of treatment, for cases which do not present any indication for venesection, I have for several years believed to be far the most serviceable. Nearly all cases of dysentery, when seen at the commencement, require a mild cathartic. A dose of castor oil given then, is sometimes sufficient to arrest all the symptoms, in conjunction, of course, with absolute rest in the horizontal position, warm clothing and a bland liquid diet. If further treatment be required, Sydenham's plan of an alternation of cathartics and opiates for several days, answers a very good purpose.

There are many cases of dysentery, which, if seen at the outset, yield to a course still more simple and satisfactory even than this. I am accustomed to administer to a patient who is having tenesmus, pain and muco-sanguinolent dejections with fever, drachm-doses of the sulphate of magnesia, every six or eight hours till the symptoms abate. And this, in very many cases seen within twenty-four hours of the attack, they do, without opiate or other remedy of any kind. Cases that begin with great severity, and with violent constitutional symptoms, do not, I believe, yield to this treatment, or to any other, but keep on their course, more or less relieved, but not

arrested by any treatment, until the natural termination of the disease. The use of small and repeated doses of saline cathartics has been so very successful in many cases, that I will copy from my note-book one of them in illustration.

CASE.—E. D. W., æt. 16. August 8th. He is usually well. After several days of moderate diarrhœa, during which he made no change in his diet, he went to bed about 6, P. M., complaining of pain in abdomen, and soon began to vomit and purge. At 10, P. M., when I saw him, was still vomiting water and mucus, with much abdominal pain, and cramps in thighs. Took a little rhubarb and soda a few minutes ago. The last two dejections were slightly reddish, but watery.

Drinks were forbidden, a sinapism applied to epigastrium—and no vomiting nor purging having occurred in an hour and a half, I left him, with morphinæ sulphatis gr. $\frac{1}{4}$.

August 9th.—Had five dejections of bloody mucus in water in the night, with pain, but no tenesmus. No vomiting. Very restless all night, and continues so. Skin temperate. Pulse 110, not unusually strong. Abdomen tender around umbilicus, over sigmoid flexure and in epigastrium. No headache. Tongue slightly coated. Thirsty. Was directed starch diet, and magnesiæ sulphatis 3 i. every four hours; hot fomentations to abdomen.

In the next twenty-four hours, there were fourteen dejections, watery, with blood and mucus. Urine free. The next day, salts three times; two dejections, about an ounce each, liquid, brownish, without blood or mucus. The next day, one dejection, same character; took no salts. Began to have an appetite. Then for two days had no evacuation from the bowels. Had still (August 14th) some tenderness on pressure around umbilicus. Sleep good. Walked from bed to sofa, without pain. Took bread. Directed magnesiæ sulphatis 3iiss., which was followed by two fœcal discharges. The tenderness was gone, and he felt very well. On the 17th of August, I discontinued my visits. After the opiate on my first visit, he had no medicine except the sulphate of magnesia. He had hot fomentations upon his abdomen whenever there was pain. The discharges began to diminish in frequency within twenty-four hours. In thirty-six hours, the blood and mucus had entirely disappeared from them; the pain rapidly decreased; and finally, in four days, the discharges ceased. This happy result occurred entirely without the use of opium.

This case, which is sufficient for illustration, is a fair specimen, in respect to the effect of treatment, of most of the cases of mild dysentery that I have seen for several years. I commonly use the saline dose less frequently than in this case, and with even better result. I had forgotten who suggested this mode of treatment, until to-day, looking over Heberden's Commentaries, I found it there. Believing that it has been forgotten by most of my medical brethren, and that a great many moderate cases of dysentery would terminate much earlier and more pleasantly, with less pain and less de-

bility, under this management, than if treated with calomel and opium or opium alone, I am very desirous of presenting it to general notice.

It is too rarely in our power to point out the relation between pathology and therapeutics. But when we are able to do so, we feel that we have made one step forward in medical science. There is a suggestion of Golding Bird's on the *modus operandi* of saline medicines on the intestinal mucous membrane, which, if correct, is strongly confirmative of the advantage of their use in early stages of dysentery, and accounts satisfactorily for their excellent effect. He supposes them to produce a free discharge from the vessels of the intestine by exosmosis, by means of the higher specific gravity of the saline solution than that of the blood. If we wish to have a saline medicine act as a diuretic, it is necessary that it should be so much diluted as to be of lower specific gravity than the blood, and then it is readily absorbed (by endosmosis) into the capillary vessels of the stomach, and eliminated by the kidneys. If the solution is so strong as to be of considerably higher specific gravity than the blood, it is not so readily absorbed, but passes onward through the alimentary canal, producing a considerable discharge of serum, by exosmosis from the mucous membrane over which it passes. And we can readily understand how in the beginning of dysentery, when the mucous membrane is simply turgid with congestion, a very free serous discharge may be in this way produced, to the great relief of the intestine. It is probable that other cathartic medicines, such as castor oil (which does not act in the same manner, on account of its insolubility in the liquor sanguinis), produce their relief by emptying, more or less fully, the congested capillaries by stimulation. I am not able to say, by actual experiment, that repeated doses of castor oil would not have as good an effect as of a saline medicine; but if Dr. Bird's theory be correct, they would not. Although the sulphate of magnesia is very much more effectual when administered in the manner described, at the commencement of the disease, it often proves very good treatment at a later stage, and should be used exclusively, unless after three or four doses there is no improvement. Perhaps the best course at that time, the salts failing, is the combination of mercury with opium.

In the case of infants with dysentery, or with diarrhœa which does not yield to castor oil followed by astringents, the use of calomel can hardly be dispensed with. I am accustomed to use it in minute doses, from an eighth to a sixth of a grain, combined with opium, for children under two years of age, repeated three or four times a day, with the happiest effects. In diarrhœa particularly, which without being very severe, is obstinate, and has continued from day to day in spite of chalk mixture and catechu, twenty-four hours under the use of calomel presents a marked change in the character and frequency of the evacuations.

Dysentery cannot be successfully treated without great regard to various other considerations besides the administration of medicines.

The diet must be of an entirely unirritating character, that which will be easy of digestion and leave very little excrementitious matter. Amylaceous products are therefore best suited to answer these indications, and the particular article among them may be left to the choice of the patient. Everything taken must be liquid. If there is any tendency to prostration, animal juices and broths must be employed, even from the beginning. And in the case of infants, it will not be safe in any case to keep them long upon an exclusive starch diet. If prostration is very great, stimulants must also be used, however severe the local symptoms may be. Brandy, ammonia and beef juice may be required from the very outset, and are not incompatible with any medicinal treatment it may be necessary to adopt. Absolute confinement to the horizontal posture has a very decided effect upon the comfort of the patient, and the severity of the disease. The use of the bedpan, instead of the exertion of getting up and keeping an upright position during the evacuation of the bowels, will generally lessen the number of discharges at least one half, and diminish the most distressing of the symptoms, the tenesmus. Hot fomentations upon the abdomen are often agreeable and useful. Enemata of starch and laudanum (a few drops in not more than an ounce of starch), emollient applications to the anus, or cold water applied there from time to time, are grateful, and sometimes diminish the number of dejections. A strict attention to preserving the warmth of the surface by proper clothing will diminish the liability to dysentery, and is sometimes sufficient of itself to check a commencing diarrhœa, without the use of any medicine; just as a warm bath produces the same excellent effect upon an infant. Hufeland takes the pains to speak of a uniform warm clothing as the most sure preventive of dysentery. I believe I shall not be thought to have extended this article to an unwarrantable length with matters of too trivial a nature, for every sound physician will agree with me that these small things are too lightly touched by many teachers of medicine, and too little practised.

EXFOLIATION OF THE COCCYX.

[Communicated for the Boston Medical and Surgical Journal.]

J. F., æt. 18, a farmer by occupation, had been suffering for about 18 months from a discharge of pus in the perinæum. The first indication of disease in that region was an ordinary furunculus which never healed.

Upon examination, there appeared to be two or three sinuses close together, from which the discharge took place. These were situated about two and a half inches anterior to the anus, and to the left of the raphe. Introducing a probe, the fistula was found to extend as far as the margin of the anus, and appeared to be just under the subcutaneous cellular tissue, which from infiltration had become thickened and dense. The operation consisted in the ordinary method