ON THE

DIARRHOEAS OF THE PRESENT PERIOD.

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As is generally observed at this period of the year, affections of the bowels, in all their varieties and forms, from merely simple diarrhoea, to dysentery, cholera, and colic, have become prevalent. Diarrhoeas of various characters have been prevalent for some time, and perhaps all the affections of the bowels which have been observed, may be regarded as but modifications, more or less severe, of the simple form. In some instances a mere increase of the peristaltic motions has taken place, and which, perhaps, upon the evacuation of some noxious generation, has spontaneously subsided. More frequently, however, with an increase in the number of stools, there is a considerable deviation from the natural and healthy appearance of the evacuations. These present different appearances in different instances. In some, the stools are watery, and of a bright-yellow colour; in some, the colour varies from the citron to a deep saffron; in others, they vary from a lively green to the darkest shade of the same colour; while in others I have observed them blueish, or even black like pitch. In the former, the stools are mostly thin and watery, having little or no consistence, but in the blue or black they are more consistent, varying from that of treacle or tar to the thickness and adhesiveness of softened pitch. I have also observed another form, in which the evacuations are watery, but of a reddish colour, resembling the washings of beef, a character owing entirely to an intermixture of blood effused probably from the mucous surface of the intestinal canal.

With the above there are violent pains in the stomach and bowels, at least in the severe forms. The griping is sometimes intolerable, the flatulency very distressing, and the whole alimentary tube in a state of very great irritation.

Other cases assume more decidedly the character of cholera. The patient is attacked first with mere diarrhoea; after a short period nausea and vomiting succeed, attended with violent pains in the stomach and bowels, and cramps of the extremities. However, these affections differ from cholera, inasmuch as the evacuations do not contain an inordinate quantity of bile, nor do the evacuated fluids possess the acrimony which characterises the bilious evacuations of cholera. Air is generated in great abundance, and the pain, for the most part, seems to arise from the distention of

the highly-irritable tube by the inordinate quantity of air.

Some degree of constitutional excitement, in some instances considerable, attends. In children, and those of tender age, the excitement is considerable, and of a highly-irritative character; the pulse is rapid and thready; the temperature of the surface very much increased, and, in some cases, a tendency to coma, in others to delirium, prevails, but in none to an alarming extent. In those of more advanced age, and in whom the phlogistic diathesis prevails, the excitement assumes more decidedly the inflammatory character, sometimes so much so as to justify, or even require, a moderate abstraction of blood. In old persons, and in those of the leuco-phlegmatic temperament, there is a deficiency of the natural excitement, and the temperature of the surface and the vigour of the circulation* are soon reduced below par. In most cases the feet, in many, also, the hands, and in a few even the tongue†, have felt unnaturally cold.

Discoloured evacuations of the greenish tint prevail more among children and youths; bluish or dark among those in the vigour of life, and in both these, perhaps, the bloody evacuations are most likely to prevail. In children, and those of extremely irritable and nervous temperaments, the blood resembles the washings of beef before described; but in the vigorous and plethoric it is more like the bloody discharges of dysentery, with which these cases are easily and often confounded; still, the absence of tenesmus and of the other symptoms usually attending the progress of dysentery, will serve to distinguish them.

I now come to describe a form of which I have as yet observed but eight or ten instances; but I am anxious to direct attention to it, because, should it become epidemic, which is by no means improbable, it will prove both obstinate and fatal. I have seen it epidemic and fatal in Spain, yet it is much under the control of treatment. The practitioner, if he wishes to be correctly informed, must examine for himself, nor feel satisfied with the representations or descriptions of the attendants; if he do, he may be betrayed into the belief of a mere simple diarrhoea, or cholera, or colic, or some such, and never attain to any just conception of the nature of the disorder.

It commences most frequently as a diarrhoea of rather severe character. The number of the stools varies from six or seven, to twelve, fifteen, or even twenty, in the twenty-four hours. Vomiting, if it have not attended from the first, often succeeds shortly after the purging has commenced, but the vomiting is seldom very severe, nor does it continue long. Severe pain prevails

* Not the frequency.

† The coldness of the tongue is more frequent in the form about to be described.

throughout the abdominal region, and there is a degree of tension which seems to be independent of any distention. There are pain and confusion in the head, resembling vertigo; the tongue is moist, and frequently cold; the temperature of the surface is, in some cases, slightly elevated; mostly, natural, or, probably, a little below par; the pulse is weak, frequent, and irritable, sometimes more full and soft; the patient, along with the gripings, complains of cramps, especially of the legs, and these sometimes are very severe; the stools, although they uniformly possess one and the same character, yet the sensible properties are never described alike by the attendants. Thus some have told me they resembled "mud;" others, that they resembled "milk;" some described them as resembling "chalk and water;" while others, likened them to "soap-suds." Not one of these imputed similitudes is calculated to convey an adequate or just notion of the nature of these evacuations. They resemble nothing so much as "yeast;" but when first passed they resemble it merely in colour and consistence; probably there will not be a single air-bubble to be seen, and they will, probably, remain in this quiescent state, without the slightest alteration, for hours. The time, however, of quiescence varies in different cases, nor is it easy to assign any cause for this difference. In most cases the evacuation is rather scanty, perhaps never what could be termed profuse; but the peculiar singularity consists in the tendency to *fermentation*, and which invariably succeeds at a period, more or less remote, after being voided. The fermentation, too, is of so active a nature, that although when voided the evacuation may not exceed the bulk of the contents of a six or eight-ounce gallipot, yet, when fermentation has commenced, and arrived at perfect activity, I have seen it overflow a large chamber utensil, and attain a bulk capable of completely filling one of two or three gallons.

To what is this tendency to fermentation owing, how is it generated, or how excited? To questions of this sort it is not easy to give a satisfactory answer, or to suggest even a plausible explanation. We know that the autumnal season brings on affections of the bowels. "*Fit item lævitas instestini-
norum quæ leienteria vocatur**"; but we have no reason to presume that Celsus' Lientery bears the slightest analogy to the present affection.† During the present season we have had not only the usual sudden transition from the heat of summer to the comparative cold of autumn; but still farther, the changes have been unusually marked and sensible, as well as various. There are no circumstances more calculated to induce

diseases, although, perhaps, we have no means of anticipating, with certainty, their character. We find that it has been remarked, even from the earliest periods of medical history, that sudden and frequent changes of weather, no matter of what description, engendered diseases.

However, let us waive speculation, and come to something more useful,—the treatment of a complaint not of frequent occurrence, and which it is possible, under approaching circumstances, may engage no small portion of the practitioner's attention.

In determining the treatment it is necessary to keep in view the nature of the causes. It is proverbial that diarrhoea and cholera prevail more extensively in autumn than any other season. This has been attributed to the greater indulgence in plums, which generally become more abundant at that period. But there is good reason to believe that this is not wholly the cause. The autumnal diseases frequently commence long before the appearance of that fruit; and, farther, often they do not appear till long after the coming in of the fruit. It also sometimes happens that they commence before the fruit comes in, and cease, as it were, spontaneously at the period when the abundance is at its acmé. That light diarrhoea may occasionally prevail, in consequence of premature indulgence, in seasons when the fruit is slow in ripening, or coming to perfection, probably no one will deny, but still this will not establish the rule. The variable weather, and the frequent changes which rapidly succeed each other at this period, are more obvious causes of the susceptibility generated at this season; and, indeed, it cannot have escaped observation, that when the weather becomes fixed, disease, should it occur, is neither extensive nor prolonged, the constitution seeming speedily to habituate itself to the altered circumstances. Although, however, sudden changes may dispose to disease, we have yet to inquire what gives to these their peculiar type or character; for instance, why have we diarrhoea, as it were, epidemic in one year, cholera in another, dysentery in a third? It was remarked by Sydenham, and there can be little doubt of the correctness of his observations, that there are peculiar constitutions of the atmosphere which, to a certain extent, determine the type of the prevailing disease.* Therefore we can readily admit that vicissitudes of weather may dispose to disease, that is, increase the animal susceptibility, while the constitution of the atmosphere at the period will determine the nature of the disease. In a season so fluctuating and varying as regards both temperature and moisture, the protection of the surface against such

* Celsus de Medicina, lib. ii., cap 1.

† A disease of a similar character has been described by Latham and Roget as epidemic some years since in the Milbank Penitentiary.

* See Sydenham de Morbis Epidemicis, also the Chapter entitled *Constitutio Epidemica Annorum*, 1661, 62, 63, 64, Londini.

changes forms one of the most important features of the *prophylaxis*. The body should be protected by flannel, which preserves an equability of temperature, preventing the cold, of rapid evaporation, or the cooling of excessive perspiration, and also diminishing the violence of the reaction caused by excessive external heat.

In the more ordinary descriptions of diarrhoea there is but little occasion for the interference of art. A dose of rhubarb in some aromatic infusion, as of cloves, or in some carminative vehicle, will generally answer every purpose. When, however, there is acidity, then we must add some absorbent, and I have found the compound powder of chalk, with an adequate proportion of rhubarb, diffused in water, and then warmed by the tincture of the latter, sufficiently efficacious. To this, should there be severe pain or griping, a little tincture of hyoscyamus, or opium, may be added. This is all that will be required in ordinary cases. When the disease appears to originate in redundancy of bile, mercury, so often resorted to, seems injurious, which, indeed, might be inferred from its promoting the flow of bile, already secreted in too great abundance. When there is a phlogistic diathesis, with any tendency to inflammatory action, a moderate abstraction of blood will prove a valuable auxiliary. When vomiting attends, and proves obstinate, giving, in some degree, an appearance of cholera, the stomach should be evacuated by an emetic of ipecacuanha, or, still better, perhaps, by a saturated solution of salt. Then the treatment recommended above will, in most cases, be effectual. If, however, the diarrhoea should continue obstinate, the rhubarb may be given alone, and, after it has operated, the chalk mixture, with opium, and some astringent tincture, as catechu or kino. There are few cases which will resist these; if such, however, be met with, a blister applied to the abdomen, and the exhibition of starch enemas, with opium, will effect a cure. Cases of this obstinate character generally begin to assume the appearance of dysentery, and ultimately blood, or mucus, or an intermixture of both, is evacuated, and the voiding of the stools is attended with tormina and tenesmus. The treatment of such cases differs little, if at all, from that of simple dysentery. We have only to adjust the means to the violence and urgency of the symptoms. The detail is unnecessary here. When the functions of the liver appear to be suspended, or morbidly deranged, as indicated by the green or other discoloured appearances of the evacuations, calomel may be given in moderate doses till the healthy colour is restored*, or any other unhealthy deviation corrected.

When the evacuations ferment in the manner just described, a somewhat different treatment will be required. The few cases which have come under my observation this season, were attended, in the beginning, with vomiting, and severe cramps of the extremities. I did not see them till the vomiting had ceased, but the cramps and pains of the head continued severe. Had I seen them during the stage of vomiting I should have had no hesitation in administering the saturated solution of salt. The first thing, however, I did, was to exhibit an active dose of calomel and rhubarb, quickening the operation by means of a laxative enema, to which, if flatulence were distressing, was added some foetid tincture or gum. I then directed two scruples of blue pill, with one of the compound powder of ipecacuanha, to be mixed, and divided into twelve pills; one or two for a dose every, or every other, hour, till the gums became slightly affected. In some I have prescribed from a scruple to half a drachm of the grey or prot-oxide of mercury, with a scruple of Dover's powder, made into a pill mass, with extract of hyoscyamus. The last appears to me to be preferable when we wish to affect the gums very speedily; but the former is perhaps, though slower, less irritating. I have not tried calomel on this occasion, but from former trials I am inclined to think that it proves too irritating in this disease. When once the gums have been affected the disease certainly yields; but it frequently happens in mild cases, that the disease yields, after two or three doses, even without the gums becoming affected. Were the disease to assume the epidemic form, it is probable it would prove more obstinate, and require the full and complete agency of the mercurial.

Absorbents and antacids have appeared to me of little benefit unless when acidity exists in the stomach and bowels. They in no way control the fermentation. Kino or catechu appear to me more useful, but it is still a matter of uncertainty whether they do not act by facilitating the introduction of the mercurial, and inducing its specific action in the system. I have observed, even in the severest cases, that when the mouth becomes affected the symptoms mitigate, but when the system resists the mercurial, the disease proves, for the most part, obstinate and lingering, and, if not ultimately fatal, it so far impairs the health that perfect recovery is protracted to an almost indefinite period.

* It should, however, be kept in mind that calomel will produce green stools, especially in the irritable intestines of children.