

sensation; perfect loss of motion; urine comes very scantily; hardly knows when he passes his motions; has been feeling giddy and strange since last January, "was at times like one drunk;" deafness of the right ear since January, and then says he saw double.

30th.—Urine passed this morning, strongly acid; specific gravity = 1023.2. 64,724 grammes precipitated by ammonia; earthy phosphate = .130 = 2.00 per 1000; 33,030 grammes precipitated by chloride of calcium and ammonia; phosphate of lime = .125 = 3.78 per 1000 urine.

Nov. 4th.—Urine passed between five and eight, before breakfast; acid; specific gravity = 1021.2. 57,105 grammes precipitated by ammonia; earthy phosphate = .035 = .53 per 1000; 32,800 grammes precipitated by chloride of calcium and ammonia; phosphate of lime = .150 = 3.87 per 1000.

Dec. 24th.—He went out relieved.

This was, probably, a case of disease of the spinal cord and of the brain. The amount of phosphates is certainly not increased, excepting the earthy phosphates the morning after admission, when probably sulphate of magnesia had been taken.

Paralysis from Arsenic; Phosphates.

CASE 8.—Alexander D—, aged twenty-seven, baker; admitted Saturday, October 25th, 1845. On the 3rd of October, at a quarter past six P.M., took, not a teaspoonful, but rather more than half a teaspoonful of arsenic, and of acetate of copper about as much as would lie on a sixpence. Went by Black-wall railway and steamboat to Greenwich. Six or seven hours after, (between one and half-past two A.M.,) in the middle of the night, was excessively sick for three-quarters of an hour; excessive pain in the stomach, but no burning in the throat; the rest of the night was spent half sleeping.

4th.—Up at nine; no sickness or pain; took breakfast, coffee stayed down; afterwards he had great thirst, and took some sherry and water, which caused sickness, and brought up the coffee; he walked a great deal during the day; took tea, and slept well.

5th.—This day was spent in the same way; no sickness and no pain; at night he had a great deal of trouble in taking his boots off, and his hands began to grow stiff; the state of his legs made him think he had walked overmuch on the 4th.

6th.—Great deal of trouble in getting on his boots, and could not button his trousers; got another man to button them; could not feed himself easily; came up to London to the Dover-road by an omnibus; walked into the house, but not long afterwards had great difficulty in walking a quarter of a mile.

7th.—Could not get on his boots; great difficulty in getting down stairs; pains in the hands and feet; slept well; between five and seven P.M. was seized with rigors, difficulty of breathing, and swallowing, and speaking, from hoarseness; first saw Mr. Lewis, and took some medicine; no medical advice previously.

From the 8th to the 10th he got better. He had a blister on the throat; hoarseness was remarkable. He was obliged to be fed, and to be lifted in and out of bed.

11th.—Delirium came on between ten A.M. and twelve. "Fancied himself mesmerised;" "shame to allow him to be tortured." "Thought himself sent to hell;" thinks his cramps did not begin until after this.

12th.—"At night came to himself more."

13th.—"Quite refreshed like," excepting that he had most severe cramps in the legs.

15th.—Came to Davis-street; had severe cramps and pains, but gained some power in the legs. Some days, hands, he found, were more limper than others.

Oct. 23rd.—I first saw him in Davis-street, unable to move or help himself.

25th.—Admitted into St. George's Hospital. Citrate of iron, six grains, three times a day, in pimento water; morphia draught every night; castor oil, half an ounce, every other morning; eight leeches to the epigastrium.

26th.—Urine passed about eight A.M.; acid; specific gravity = 1008.6. Very large quantity passed about five—the secretion of thirteen hours; had taken some sherry. 32,660 grammes precipitated by chloride of calcium and ammonia; phosphate of lime = .055 = 1.69 per 1000. Nitre draught and infusion of diosma, each one ounce; tincture of hyoscyamus, half a drachm, twice a day; morphia draught every night.

27th.—Urine passed about five A.M.; acid; specific gravity = 1014.8. 64,775 grammes precipitated by ammonia = .039 = 0.60 per 1000; 32,861 grammes precipitated by chloride of calcium and ammonia; phosphate of lime = .150 = 4.56 per 1000. Vapour bath.

28th.—Splint to the left hand.

29th.—Vapour bath in the evening; morphia draught, two ounces, at night.

31st.—Calomel, five grains; opium, one grain and a half: to-night. Senna draught, an ounce and a half, in the morning; injection in the evening.

Nov. 3rd.—Continue the draught, with six minims of tincture of cantharides, and the same quantity in each night draught.

10th.—Strychnia, one-twelfth of a grain, in a pill, night and morning; infusion of diosma, two ounces, three times a day.

14th.—Continue the pills, three a day.

21st.—Omit the strychnia.

March 11th, 1846.—Went to Bath; unable to walk or write.

Sept. 13th.—Leaving Bath; not able to stand; hands much improved, but not able to write.

Oct. 9th.—Readmitted for a few days into St. George's Hospital; able to walk with crutches.

May, 1847.—Able to write well, and to walk with irons.

July 12th.—Tried to return to work, but was unable to continue in a place from want of power in the legs.

The paraplegia in this case resulted from the state of the muscles. It can scarcely be considered as belonging to the class of spinal disease. The phosphates seem, from the first analysis, to be below, and, from the second, to be about, the healthy standard. No satisfactory deduction can be made from two analyses. The history of the case is of some interest.

Conclusion.

These cases of paraplegia give no countenance to the generally received opinion of the increase of the earthy phosphates in spinal disease. The third case is the only one in which the amount seems to be above what was found in the other cases. The nature of the case was doubtful, and I can offer no explanation of the reason why there was more in this case than in the others. Further experiments are required. In a larger number of cases of spinal disease, the amount of earthy and alkaline phosphates must be determined by the balance, and then possibly some explanation may be obtained regarding such exceptional cases. The general rule, however, from the cases above given, is, that neither the earthy phosphates nor the total amount of phosphates are increased in spinal diseases.

Hospital Reports.

ST. BARTHOLOMEW'S HOSPITAL.

MEDICAL REPORTS FROM THIS HOSPITAL.

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(Continued from page 505, vol. i. 1847.)

In the vascular system, returning to the analysis, there does not appear to have been anything particularly noticeable in the pulse beyond its habitual smallness and want of resistance. Important as these characters were in respect to the indications of treatment in single cases, there does not seem to be anything of interest for a general analysis, beyond the facts, that in two apparently slight cases the frequency was never greater than 96, that the average greatest frequency was above 120, and several times 144, or once 150 pulses were counted in the minute, in cases which ultimately did well.

Digestive organs.—In a very small number, pain in the throat was a subject of complaint, but only slight vascularity of the fauces; and in one case, swelling of the sub-maxillary glands is all that was discovered, on examination of the parts, in explanation of a symptom which would have been passed unnoticed but for the suggestion which constantly arose of its being referable to scarlatina.

The symptoms more immediately referable to, or manifested through, the stomach itself, were, nausea, vomiting, and pain in that part. Of these, vomiting, as containing also probably in itself the first mentioned, was by far the most frequent, occurring in nineteen cases. In many of these it was an initiatory symptom, and as such entirely removed from observation. Twelve cases only throw light on the circumstances under which it occurred in the further progress of the disease. In three, it appeared to arise simply from the irritability of the stomach, which could not tolerate the food required for the support of the system, in the weakened state of the body at the end of a month or more of illness. In these cases

that the administration of food by enema is so useful, the stomach thus being placed perfectly at rest, and the patient saved the fatigue or annoyance of having food urged upon him against his will.

In two other cases, at a little earlier period, where the tongue exhibited only a slight fur, guided by the indications, lime-water and hydrochloric acid were severally prescribed with success. In four cases, this symptom occurring towards the end of the first, or in the course of the second week, was accompanied by diarrhoea, with a more or less thickly furred tongue, which last being in another case taken as an indication of treatment by purgatives, showed the inutility of such a plan. In one of these cases, the vomiting ceased on the use of stimulants; in another, the application of leeches to the abdomen, guided by the indications of pain on pressure, was of great service; but in the three others, the vomiting seemed referable to the condition of the intestines, judging from the diarrhoea, rather than of the stomach; and the vomiting ceased, and the tongue cleaned spontaneously, followed in a few days, in one of them, by a profuse discharge of blood from the bowels.

Vomiting is so distressing a symptom, and naturally attracts so much attention, that it is worth while to dwell rather on such cases as assure us that it is but a symptom, and drive us to look for its causes in other organs than the stomach. Thus, of the two remaining cases, which both presented a dry, red tongue in the course of the second week, in one, the vomiting was treated successfully by leeches to the iliac fossa, where mischief was suspected; in the other, whose symptoms required stimulants, dissection showed a healthy condition of the alimentary canal; in the one, therefore, the stomach apparently not being the part of the alimentary canal implicated—in the other, the alimentary canal not being implicated at all.

Pain in the stomach was a prominent symptom in three cases, one only of these having also suffered from vomiting. Here, as already observed, the application of leeches was found of great service. In another patient, (Case 53,) who died during the continuance of this symptom, the stomach was found generally injected; but lest too hasty a conclusion should be drawn from these facts in favour of depletive measures, it must be added that the third patient, who also died, presented no such increased vascularity.

If anything can be concluded from this, it is, that symptoms referable to the stomach in the course of fever do not ordinarily arise from primary affection of that organ; and that, therefore, unless particular indications urgently demand treatment, they had better be left alone. The furred tongue seems not to depend on the state of the stomach, but perhaps on the same cause as this and the diarrhoea, on all which it would appear that the vomiting exerts a salutary influence; and, indeed, where nausea only is present, with a furred tongue, advantage is derived in fever, as in other diseases, by inducing vomiting by means of an emetic.

The symptoms from which the intestines were presumed to be affected were, pain in the abdomen, and diarrhoea, occurring respectively in forty-one and thirty-five cases out of fifty-two, and twenty-six of these cases presenting both symptoms.

It does not appear worth while to investigate the history of these symptoms; for as the pain in the abdomen, on an average, was not noticed till later than the admission of the patient, it is most likely that its existence at an earlier period had been overlooked. The diarrhoea, on the other hand, which appears to have, on the average, preceded the pain in the abdomen by more than a day, is, with great probability, to be referred to purgative medicine taken by the patients at the beginning of their illness. Excluding the most obvious sources of fallacy, we find, that out of twenty-six cases, where both symptoms occurred, the pain preceded the diarrhoea, or accompanied it at its commencement, in fifteen cases, and followed it in eleven. Of this whole number, the average date of admission was the 8, 4th day; of the commencement of diarrhoea, the 8, 5th; of that of pain in the abdomen, the 9, 7th day.

But instead of pursuing further a question, the elimination of whose fallacies only would occupy so much time, it will be better to consider these symptoms in relation to the treatment employed to control them. And first of the pain in the abdomen:—

In eight cases, where distinct evidence of pain was produced, or pain already existing was increased, by pressure of the abdomen, leeches were employed. The pain was the constant indication, confirmed, in some cases, by a red tip and edging to the tongue, and the degree to which depletion might be carried was measured by the pulse. Examined by this

rule of comparing the symptoms which led to the prescription with those that followed the application of the leeches, the analytical results are not very favourable; for in only seven out of twenty-one applications was there any marked relief, and this irrespective of any particular state of the tongue. But there are many expressions of comfort which do not appear in an analysis; and though the pain was not altogether removed in some cases, yet great local relief was derived from the leeches so as to suggest their application in another place which was now the least tolerant of pressure. But, indeed, it does not seem likely that on such slender indications of improvement the patients would have been again depleted for pain which had to be produced by pressure, while the pain in the head which they complained of was left to itself. The obscure indications rested most surely on what dissection told of the condition of the colon and ileum in other cases; and though leeches were not applied unless some tender point of the abdomen was discovered, yet a very slight degree of pain, with a red tongue and the least sharpness of the pulse, have been indications to apply leeches, though wine had to be given at the same time, to enable the patient to bear the depletion; while, on the other hand, a much greater degree of pain has been left alone, because no other symptoms were present to imply that the pain depended on any serious lesion.

Taking this more extended view of the subject, the results are very satisfactory; for of these light cases only one died, and her death was caused, at a remote period, by the effects of ulceration of the bowels; certainly the right indication had been pursued.

We have alluded to pain in the abdomen apparently unconnected with any organic lesion. For this there is one application, so suited that it would not ever go untreated by any one who had seen the exceeding comfort derived, in some of the above cases, from the application of a large linseed-meal poultice to the abdomen, where the indications for the use of a blister were not sufficiently well marked to justify its application.

Diarrhoea, though a common and severe symptom, was not constant throughout; for in nineteen cases it was thought necessary, before or after admission, to employ purgatives. These cases we will class, by means of the different condition of their tongues, as the single symptom from which, in common practice, most is inferred with relation to the state of the alimentary canal.

In four cases, in which purgatives had been employed from the outset of the disease, and the tongue was thickly furred and moist, the diarrhoea which was set up was very profuse, and a cause of great alarm. In two other cases, where the tongue presented the same appearances, a cautious administration of purgatives produced the best result; the bowels were quietly relaxed for the time, though no direct result was discernible in the progress of the fever.

In six cases, a single dose of purgative medicine, generally castor oil, was well borne; the tongue, which had not been thickly furred in any of them, became cleaner, and the red tip and edging were changed, in one, for moist, flabby boundaries to the organ. But this class includes some who were approaching convalescence.

Seven cases, where there was little to mark in the state of the tongue, had merely constipated bowels, which it was thought advisable to relieve. In two of them, who had clean, dry tongues, this indication was sufficiently answered; for the patients took small doses of purgative medicine, which quietly relieved the intestines—their tongues remained dry, and they continued to sink into death with hardly a symptom. In the other five, a troublesome diarrhoea was set up under the same circumstances; and there was reason to think that the purgatives would have been better omitted, though the death of the only one fatal case was attributable to quite other causes than over-purging.

It would be matter of congratulation if, from the above, we could draw any rule to determine the cases in which purgatives may safely be employed; but it does not seem possible, the two symptoms on which one would rely—namely, the state of the tongue, and the presence or absence of pain in the abdomen, although often contra-indicating their use—never assuring us that they may safely be administered. The only inference which an analysis seems to justify us in drawing is, that on the simple indication of emptying the bowels no ultimate harm has followed the use of a small dose of castor oil: a large dose or a more active purgative, to be given with a view to clean the tongue, as it is said, would be a very hazardous experiment, and one not at all likely to succeed, for we have already seen how the tongue

remained thickly coated during the continuance of the most profuse diarrhœa.

Of the effect of one medicine very largely given to regulate the action of the bowels, with or without opium—namely, mercury with chalk, there are no sufficient grounds for speaking with certainty. The discussion of such a question obviously requires that the same series of symptoms should have been allowed to run on, uncontrolled, in one series of cases; and treated with mercury and chalk in another. But we have no such double series sufficiently long and closely observed, to obviate the fallacies which rise up on every side in such an investigation, and can only state generally, that the effect of mild mercurial treatment was more marked in restoring the proper appearance of the alvine evacuations, where they had been dark and slimy, than where they had that light pulverulent appearance, which is known as ochry. It was rarely that any actual astringents were required to check the diarrhœa, the addition of a small quantity of opium to the mercury and chalk being generally sufficient for this purpose, aided at times by an aromatic draught, with a few drops of laudanum, or a blister to the abdomen. This last remedy was employed in twelve cases, with the following results:—

In three cases, where blisters were applied to the abdomen, on no very clear indications, no particular results followed. In one similar case, the application was followed by a renewal of the profuse diarrhœa which the patient had previously laboured under;—these were the bad results. On the other hand, in one case, the pain in the abdomen, for the relief of which this remedy was made use of, was immediately removed; and in seven cases, diarrhœa, more or less profuse, was at once checked. The form of diarrhœa, for which this application seemed so useful, was where the bowels had been relaxed for two or more days, the evacuations being loose and watery, but otherwise of variable character, and passed unconsciously. The relief afforded under these circumstances was sometimes very striking, the more so, as the particulars of these cases clearly show the relief not to be owing simply to the stimulants which the patients might be taking at the same time.

There was generally little to notice in the evacuations themselves, further than the ochry character which prevailed in most of the cases during the height of the fever. But besides two cases which presented dark, almost black, alvine evacuations just before death, the colour of which was evidently attributable to blood, three cases had distinct discharges of red blood from the bowels. One of them, in whom the discharge had been very profuse, rapidly got well; the two others died. In the one where the hæmorrhage had only occurred once, and to no great amount, many ulcers were found in the intestines, and the same appearance of ulceration, in a more active form, was found in the other subject of intestinal hæmorrhage, which here was indeed very profuse. The severe hæmorrhage occurred at the end of the second week in both cases. This part of the subject has already been fully dwelt upon in the narrative of the cases alluded to.

Of thirteen cases in which the state of the mucous membrane of the bowels was examined after death, three presented a healthy condition of this part. The patients had died on the 10th, 13th, and 17th days of the fever. A fourth, dying on the 13th day, had only slight thickening of Peyer's patches. The other nine cases all presented more or less extensive ulceration of the small intestines, extending, in all but one case, into the colon also.

But of these nine cases only two presented the form of lesion to which the name of typhous ulceration is peculiarly appropriated—namely, a deposit beneath the mucous membrane covering the solitary or aggregate glands, by the separation of which, through a simple crack in the membrane, the typhous ulcer is produced. Such a state of things is exemplified in Case 53.

In other cases these glands were thickened, as if from interstitial deposit; but instead of cracks appearing in the mucous membrane, through which the deposit might be removed, were small round ulcers on the surface (Case 55), which showed their independence of the deposit by extending in some cases beyond the limits of the patch on which they had originally been seated, (Case 45.) The patches on which these ulcers were seated, as well as those which were not ulcerated, in the same subjects, were thickened and corrugated on the surface. In one case (42) this thickening was not confined to the Peyer's glands; but the mucous membrane of the lower part of the ileum was generally red and swelled, and hung down in folds.

An equal variety of lesions of the mucous membrane of

the intestines has been described at considerable length by Andral, ("Clin. Medicale," tome i. p. 490.) There appears no reason for dwelling on them here, any further than merely to call attention to them, for the diarrhœa does not seem to have borne any close relation to the varieties, but rather to the extent, of the lesions. But a few remarks on the connexion of this lesion with the symptoms observed during life will not be uninteresting.

Of these thirteen cases where the state of the intestinal mucous membrane was examined, four presented no traces of ulceration. Of these, one had diarrhœa at an early period; and another had diarrhœa at a later period, with some pain in the abdomen; in both, however, these symptoms were slight. The two others had no abdominal symptoms whatever. Of the nine cases where the bowels were found to be ulcerated, the whole number had diarrhœa, accompanied, in four of them, by hæmorrhage from the bowels. Of the seven in whom this point was investigated five had also pain in the abdomen. So that, judging from these small numbers, pain in the abdomen and diarrhœa may cause just apprehensions of the existence of ulceration of the bowels. The condition of the tongue does not seem so safe a criterion, for the broad, dry, central streak, with red tip and edges, might be met with, independent of ulceration; but of all the varied appearances which this organ presented, hardly admitting, in so small a number of cases, of any exact tabular analysis, it may safely be said, that a red condition of the tongue was more commonly met with during life, when the intestines were found ulcerated after death, than where they were found exempt from this lesion.

Treatment.—The subject of treatment, apart from all consideration of local complications, seems to require a few remarks. Of the antiphlogistic treatment, in this point of view, there is not much to say, for venesection is all but excluded from the treatment of fever, and the few cases which were submitted to this operation throw no light on the particular indications demanding the operation, as they were bled before admission. Neither is there anything to say with regard to the use of other general antiphlogistic measures, as of antimony, for instance. For the cases in which this medicine was given in quantity at all sufficient to produce any effect were very few, and the difference in the symptoms and progress of these few cases was so great that it seemed most likely that the inflammatory symptoms arose from some undetected local disease, which nothing but the fact of that disease remaining undiscovered, justifies us in considering as cases of fever at all. Literally, the same objection might apply to most cases of what is called continued fever; practically, the difference between these cases and the majority of the subjects of these remarks was very great.

An opportunity of verifying this observation, in some degree, has presented itself this year, in a young woman, who had fever of the kind just alluded to, treated successfully by the exhibition of antimony. A few days after apparent recovery she was attacked with erysipelas of the head and face, of which she died. On dissection, the intestines and mesenteric glands were found quite healthy. Perhaps the inflammatory fever was only the precursor of the erysipelas; at all events, as far as the single observation of the absence of intestinal lesion goes, it justifies the inference that cases of the above nature are not cases of ordinary continued fever.

In speaking of the administration of wine there is the same difficulty as with regard to the employment of another remedy very extensively used—namely, that we have not a double series of cases, in one of which wine was employed, while the others were left, under parallel circumstances, to the restorative powers of Nature. The truth cannot be as distinctly, though perhaps not less surely, reached by the following analysis:—

Of the fifty-two cases, thirty-two had wine exhibited on the 12,1th day, taking the average. Of course this number includes nearly all the severe cases and deaths, all, indeed, but two of the last. Of the eighteen who recovered, it appears by analysis, that they were admitted on the 7,7th, and had wine first given on the twelfth day, while the fourteen who died were not admitted till the 9,2th day, and did not take wine before the 12,2th day. The author is not aware of any fallacy which vitiates the inference that early attention to the symptoms of fever and early administration of stimulants were great elements in the restoration of the severer cases of typhus fever.

There are few points wherein present practice differs from that of the last generation, more than in this of the treatment of fever, whether a stimulant or an antiphlogistic plan should be pursued; but it cannot be too often repeated, that the differ-

ence is not in ourselves as practitioners, but in the type of the fever. The rules for the exhibition of wine, according to which it has been given in the cases which we are now analyzing, are as clearly laid down in Bateman ("On the Contagious Fever," p. 122) as they could be by any witness of the fever, as now prevalent; an author whom no one will accuse of leaning too much to a stimulant plan.

In the treatment of ordinary disease, it is necessary to know the symptoms and the habit of the body which we have to deal with. In fever, and other epidemic diseases, there is something more wanted—namely, that *constitutio anni*, the knowledge of which Sydenham states he only obtained for the advantage of his latter, at the cost of his earlier patients. The study of morbid anatomy has in no slight degree enlarged the field from which this knowledge may be drawn, and accelerated its attainment by enabling us more correctly at once to refer effects to their causes; but everything must not be given up for the indications of this *constitutio anni*, for there are certain symptoms which have a constant meaning, whatever it may be, and the necessity of attending to these symptoms could not be better enforced than in the quaint words of Huxham, where, speaking of the small-pox, he says ("On Fevers," Transl., p. 126):—

"Here the Pulse is rapid, full, tense; the Breathing hot, short, and laborious; the Heat very sharp, and the Urine high-coloured; the Thirst great, the Tongue dry and foul; the Pain of the Head, Back, Loins, Limbs, exceedingly acute. Under such symptoms I would bleed in a Pestilence, or else the utmost Danger will arise from the inflammatory Diathesis of the Blood, abstracted from the Contagion."

Original Papers.

ON THE WRITINGS OF SYDENHAM.

By GAVIN MILROY, M.D., &c.

No. V.

(Continued from p. 403, vol. i. 1847.)

In my last paper, I examined at considerable length the history and treatment of the various kinds of continued fever described by Sydenham. The subjects of intermittent fever and small-pox now come under consideration. On both diseases our author has written at great length, and it is to his writings that every well-informed physician since his time has uniformly appealed, as containing, perhaps, the most accurate and instructive information respecting them. I trust that the reader will be enabled, by the following imperfect analysis, to judge of the value of the original.

1. *Intermittent fevers*.—The three stages of an ague paroxysm are denominated those, 1st, Of shivering; 2nd, Of ebullition; and 3rd, Of despumation. They are attempted to be explained by our author in the following manner:—The first, that of the *shaking* or *shivering*, (*exhorrescentia*), appears to be the result of a nixus or expulsive effort on the part of the system to get rid of the febrile matter, which is felt to be pernicious, just in the same manner as a nauseous or poisonous draught is apt to occasion a feeling of shuddering upon being swallowed. To effect this dislodgment, Nature induces a *fermentation*, the usual instrument she employs in fevers and other acute diseases, to free the blood from injurious particles. By means of this process, the peccant matter, which had hitherto been equably mixed with the circulating fluid, becomes, in some manner, aggregated or collected together, and thus rendered better fitted to undergo the last act—viz., that of *despumation*,—"by which expression," Sydenham remarks, "nothing more is meant than the expulsion or separation of the febrile matter, now in a manner overcome; what is thrown off resembling in part yeast, and in part lees, as may be seen in other liquors." There is greater danger in the first or cold stage of an ague-fit than in the other two.*

* The internal congestion during the cold stage of an ague is sometimes so great as to cause the rupture of the spleen or liver. Dr. Brown relates the following interesting case, where the first fit of an ague proved fatal. The patient (a soldier, who had not previously complained of indisposition) "lay as cold as marble, and shivering violently, without any pulse at the wrist, and his heart acting very feebly for eighteen hours, and then expired, his intellect remaining unclouded till within a few minutes of his dissolution. The principal morbid appearance discovered was in the liver. This viscus was very much enlarged, extending below the cartilages of the ribs towards the umbilicus, had a lobulated appearance, and was gorged with blood: it seemed, indeed, as though it had yielded, in those few hours, to the pressure of the fluid which distended its vessels.—Vide *Cyclopædium of Practical Medicine*, vol. ii. p. 2:2.

If the patient survives till the effervescence or hot stage comes on, he is safe for that paroxysm at least.

The return of the febrile paroxysm is attributed to the febrile matter being only partially thrown off, and requiring, therefore, a renewal of the expulsive commotion to get rid of it entirely.

The great error in our author's theory of Intermittent fevers lies in his viewing them solely and exclusively as the results of changes or morbid operations effected in the fluids of the body. He makes no allusion to any nervous element in their pathogeny; and yet it must be obvious to all, from a variety of considerations, that primarily and originally the nervous system is more implicated than the sanguiferous. Without entering upon this interesting subject, I shall merely remark, for the present, that Boerhaave and Stoll regarded intermittents as affections of the nervous system which admitted of no further explanation, and that some of the French nosographers of the present day—M. Bouilland among the number—have treated of them under the head of "active neuroses." There cannot be a doubt but that Sydenham's theory led him astray on several points connected with the treatment of the diseases in question.

Sydenham wisely avoids offering any conjecture as to the cause of the diversity of type of different intermittents; why, for example, in one the fit should return daily, and in another only every second or every third day. He professes his entire ignorance of the subject, remarking that all which can be truly said is, that Nature has so ordained it; and that doubtless the laws which regulate the periodic accessions of certain fevers, determining some to be tertians and others quartans, are equally regular and uniform as those which preside over other operations in the physical world.

There is no point in the history of Agues that our author dwells upon with greater emphasis than the marked (he even says, essential) difference between those which occur in spring and in autumn. The former generally make their appearance in the month of February; but the exact period will vary with the season and constitution of the year. They are almost always either of the quotidian or tertian type:—"quartans are the genuine offspring of autumn." They very seldom last long, and always terminate favourably, even in the case of the aged and infirm, unless they are very grievously mismanaged by improper depletion and evacuations: then they will sometimes continue for months, and even until the following autumn, on the accession of which they invariably become extinct. The only evil sequela, which Sydenham occasionally observed to follow vernal agues,—and then only when the patients had been much weakened by the long duration of the disease, the doubling of the paroxysms, and by injudicious evacuations,—was, that some patients, when they began to recover, were seized with a madness; but this unpleasant symptom, almost always, gradually subsided as the strength returned.

Autumnal agues usually commence in August, or earlier, when they prevail epidemically. In the latter case, it is sometimes very difficult to recognise their true nature at first; "because they do not immediately assume their genuine character, as vernal intermittents usually do, but so closely resemble the course of a continued fever, that it is not possible to distinguish them without a minute examination of their history. For some time, nothing more than a remission of the symptoms takes place; it is only gradually that a distinct and well-marked intermission occurs, and the fever assumes its proper tertian or quartan character. It is of great importance for physicians to be aware of this source of error; otherwise they will be apt to mistake, to the great detriment of their patients, the disease for a genuine continued fever. On the other hand, it must be remembered that in certain seasons intermittent fevers are apt, after a few paroxysms, to assume, first a remittent, and then a continued form. This was the case in 1678, when a very great mortality was produced by them in London. The tendency to a change of type appears, from our author's statements, to have been frequently attributable to the hurtful practice, then so common, of keeping the patients too hot, and giving them stimulating sudorific medicines.

The prevailing type of autumnal agues is either tertian or quartan; the latter is almost always the more obstinate and dangerous form of the disease. Aged people are sometimes carried off after a few fits of a quartan; and, as already observed, the death usually occurs in the cold stage. In some seasons, the invasion of an intermittent has assumed all the characters of an apoplectic attack. Sydenham tells us that this was not unfrequently the case during the first years of the epidemic constitution in the quinquennial from 1675 to 1680. We must give his description in his own words:—