

decline of the plague, as it influences those of the small-pox, which is known to be contagious. Dr. Maclean has asserted with equal confidence, that typhus is not contagious, but so far from having defined what he means by typhus, he has evidently mixed it up with the ordinary fevers of this climate which are not contagious, as if fevers had not peculiar as well as common symptoms; and I more than suspect, that he has fallen into a similar error concerning the plague, for under that term he appears not only to have included the disease specifically marked by bubo and carbuncle, but the ordinary non-contagious fevers of those countries to which he alludes. In reference to the plague, however, I could only cite the authority of others to demonstrate, that it is a specific, contagious disease; but as I can speak from considerable experience on typhus, I shall feel it my duty hereafter to dissent, in regard to its nature, most decidedly from Dr. Maclean, how much soever I may respect his motives and talents.

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THE common continued fever arises from a great variety of ordinary causes, but most frequently from the influence of the weather, and like typhus, which arises from one specific cause only, it has different forms and gradations, presenting indeed, amidst its distinguishing signs, fully as much pathological variation; yet as, in developing these, I shall be compelled to dissent from many received opinions, it will be necessary first to notice the more familiar attacks of this complaint, and afterwards to show how, by a legitimate generalization, it may be made to embrace most of those disorders marshalled under the Phlegmasiæ of modern nosology.

When any one, after having been a little chilly, has some increase of heat on the skin, some rise in the pulse, some whiteness of the tongue, and some muscular and mental languor, he is popularly said to have gotten a feverish cold. This is the very simplest form of the common continued fever, which is neither unusual to children nor unknown to adults; and among the former it is often supposed to yield rapidly to the nostrums of the nursery, while among the latter it is often removed by sweating or purging. The truth is, that slight seizures of this kind would most frequently end favourably in a few days, through that natural tendency which the organs

have to resume their wonted functions of health; but as a medical man cannot in any case be assured, that it will continue of so mild a type throughout, he should always assist nature by those measures which are known to restrain excitement. In a somewhat higher degree of the common continued fever, the chilliness is followed by more heat of the surface, more quickness of the pulse, more foulness of the tongue, and more prostration of the strength and appetite; and from an early period, too, pain or aching exists in the forehead, temples, or occiput, which is often accompanied with a feeling of confusion in the brain, and which is always worse at nights, usually preventing sleep. The excitement proceeds pretty evenly, except that some abatement of it in the morning, and some increase of it in the evening, may commonly be observed, and these ebbs and flows of the fever are usually most distinct where local irritation is not urgent. Even such cases as now alluded to sometimes end well spontaneously by perspiration, diarrhoea, a very copious discharge of urine, or hemorrhage from the nostrils; and then the heat subsides, the pulse grows slower and softer, the skin smoother and laxer, while every trace of uneasiness in the head meantime disappears, with a return of sleep and appetite. But in other cases left to themselves or mal-treated in the beginning, the fever increases, the brain is slowly and at last deeply oppressed, and when the excitement recedes, instead of any amendment, the vital powers rapidly give way. The less complicated forms of this disease, however, are rarely fatal but through neglect of proper expedients at the commencement; yet as this assertion does not so much obtain with its more remarkable varieties, it will be requisite to consider them attentively.

Cases of the common continued fever more forcibly declared from the first, are ushered in by a tolerably distinct cold stage, in which general lassitude and restlessness, with confusion or uneasiness in the head, are the most predominant symptoms. In this stage the pulse is small, quick, and oppressed; the breathing more or less anxious; and the face as well as the whole surface paler than natural. With some

dryness or clamminess of the mouth, there is loathing of food; flatulence of the stomach; and often nausea, retching, or vomiting. At the beginning of the milder form, before described, the patient commonly rests upon his side; but in this he is more disposed to lie upon his back from the onset to the end. On the retrocession of the cold stage, which may continue from a few to several hours, the skin becomes preternaturally red, hot, and dry, and the pulse more frequent, full, and vibratory. The face is now flushed, the tongue white and rough; the patient complains of a deep, dull, or throbbing pain in the head; he feels himself more incompetent to mental exertion than before, and his restlessness and oppression are both increased. The symptoms do not vary much during the first four or five days; except that the head is more uneasy and confused during the night, and that the hepatic, renal, and intestinal secretions become more disordered. A slight remission of the pyrexia also generally comes on every morning, and an exacerbation every evening; and it is to the latter that the increased disturbance of the sensorium at nights is to be attributed. Indeed some degree of intolerance of light and noise, and suffusion of countenance, with great heat of the forehead, and beating of the carotid and temporal arteries early demonstrate an augmented flux of blood to the brain; and if there should not be an obvious tendency to delirium soon after the formation of the hot stage, it most frequently occurs in the progress of the fever. For the first eight or nine days the tongue continues of a white or yellowish colour, and the pyrexia maintains the inflammatory aspect. But shortly after that period, a stage of collapse gradually approaches, and what is termed the nervous symptoms at last become the most conspicuous; the patient sinking into delirium, or into an imperfect stupor with short hurried breathing, dilated pupils, dark tongue, and tremulous hands. In the worst cases the debility daily increases, and death commonly takes place at the end of the second or middle of the third week, but sometimes later. Where the excitement, however, has been of shorter continuance or of less intensity, favourable signs occasionally appear in the advanced stage; for though

the pulse may become weaker as the collapse approaches, the skin and tongue grow moister, and the respiration is not only deeper but more easy: moreover the patient begins to turn upon his side, has more desire for food, falls into refreshing sleeps, and thus recovers by degrees. Yet in such cases, mental alienation now and then continues during convalescence, and, though rarely, even remains some time after the re-establishment of the strength, but I never knew an instance in which it became permanent in an adult. Sydenham has pointed out a similar affection as the sequela of fever, for which he recommends cordials; but laxatives, light diet, small occasional opiates, and the tepid affusions have always appeared to me the best remedies.

Besides the preceding, the common continued fever puts on highly acute symptoms, and unless promptly arrested, terminates fatally within the first nine days. From the commencement of such cases there is greater uneasiness in the head in this, than in any other form of the disorder. The voluntary and vital powers are likewise much oppressed in the cold stage, and on the subsidence of the latter, an excessive determination of blood takes place to the brain; from which successively proceed great aversion to light and noise, watchfulness, a marked confusion of the mind, and often an unceasing and high delirium. An extreme irritability of the nervous system attends the developement of the fever; the arms are tossed about the bed; the head is moved from side to side; and the position of the lower extremities frequently changed. The skin grows exceedingly hot, and is often so preternaturally sensible, that the patient complains when it is only slightly touched; if his head be raised from the pillow he is generally sick; and he frequently has flying pains, now in one and then in another part of the body. Throughout the stage of excitement the face is highly flushed; the breathing quick and anxious; the tongue dryish and foul; the stomach flatulent or irritable. The pulse is not only frequent, but the carotid and temporal arteries beat with considerable force. High delirium or great mental confusion may continue from forty hours to four days, but the one or

the other is succeeded by a low muttering delirium, and that again by heaviness or coma; and it is in this last state that an universal collapse of the vital powers occurs. The patient now lies stretched out upon his back, moans a great deal, with his mouth open, and the eyes turned upward. The pupils are dilated and insensible to the stimulus of light, and one of the palpebræ is generally paralytic. Spasmodic twitchings may be observed about the face, but particularly at the wrists; the chest heaves laboriously; the pulse flies with a kind of convulsive agitation; and a superficial glow of heat is diffused over the skin, which is bathed in a dewy sweat. But the heat soon gives way, the extremities become cold, and the sphincter muscles are relaxed. In this condition life is either very suddenly terminated by convulsions, or it is extinguished in a few hours by the failure of the pulse and of the respiration. This modification of the common continued fever is far less frequent than the two preceding; and after its fatal termination, the body in general runs rapidly into putrefaction.

From the foregoing descriptions, it will appear, that this disease is attended by a mild, a moderate, and an excessive excitement of the heart and arteries; and that the symptoms are apparently modified as the one or the other of those conditions may happen to prevail. When the excitement is mild, the functions of the stomach, of the skin, of the liver, and of the kidneys are more or less disordered; while the uneasiness in the head and the loss of mental and corporeal energy indicate some disturbance in the cerebrum. But if the local and general disturbances of the circulation be early removed by art or by nature, no topical inflammation can strictly be said to exist. It is true, that, next to the brain, the secreting organs appear more especially affected, but morbid secretions alone do not constitute inflammation; since, to give an obvious example, those in the mouth are morbid in many fevers without any evidence of inflammation there. Yet even in the simplest condition of febrile excitement the increased reaction of the large as well as of the capillary vessels is closely allied to inflammation, and this is proved from the former

sometimes passing into the latter; so that the mild may be lost in the inflammatory forms of the common continued fever. Upon various occasions, the system maintains a brief excitement of the heart and arteries with an almost equable distribution of blood; but if that excitement be rapidly renewed, or continued beyond a certain period, a continual fever is produced, with topical accumulations of blood sometimes approaching, and at other times amounting to actual inflammation. If these remarks be correct, it must be manifest, that the mildest variety of this disorder should never be disregarded at the outset; since from mere neglect of proper medicines, or from errors of regimen, it might assume a more serious and complex character. In the second modification of this disease, it has always appeared to me, that a low or sub-acute species of inflammation existed in the brain, soon after the full emergence of the fever; for what else could produce the constant pain and load in the head, the watchfulness at nights, the aversion to light and noise, and the gradual approaches of delirium? It is a fatal error in practice to suppose that visceral inflammations are always denoted by excessive pain and other striking signs; and when they are of a subdued character the danger is often the greater, because we are then more apt to be lulled into a false and fatal security. The third or excessive modification is so strongly expressive of an acute inflammation of the brain, that it can neither be disputed nor mistaken; and as it at once impresses us with an alarm commensurate to its peril, we are prepared to encounter it with our most efficient weapons. Yet if a reference to the symptoms should be deemed inconclusive as to the inflammatory nature of the two last mentioned forms, I might confidently appeal to morbid dissection which, as far as my experience has extended, always discovers distinct traces of inflammation either in the brain itself, or in the meninges.

But though there be cerebral excitement in the simplest, and cerebral inflammation in the most severe forms, and though one or other of those states may be practically considered as the essence of the disease described, yet now and

then other textures are incidentally much excited or positively inflamed at the same time, particularly the trachea, the pleura, the liver, and the intestines. The inflammation of these parts may also be of the sub-acute or of the acute kind; and the symptoms will be moderate or severe, the termination protracted or accelerated, agreeably to the presence of the one or of the other. Yet it is the excitement of the heart and arteries which produces these affections by operating upon local predispositions, as shall afterwards be explained. When any of such affections are co-existent, they usually heighten the general fever, and aggravate the disorder of the brain, and in short considerably augment the danger. But though this disease, in its ordinary forms, is strictly one of simple excitement or of inflammation, yet it occasionally assumes irregular aspects, and it will therefore be proper to allude to these here. In speaking of typhus, I have endeavoured to prove, that, in fevers attended by an universal increase of animal heat, there is a preternatural fulness of blood on the side of the arterial system; and also on the contrary, that in those where there is a want of an unequal developement of what is called re-action, the venous system is over-loaded with blood. From these premises, founded upon what actually occurs, it must necessarily follow, that more or less arterial fulness exists in the forms of the common continued fever which have been noticed. But it sometimes happens, after an exposure to the causes of this disease, that the skin becomes cooler than natural, the heart's action oppressed, and the whole system so prostrate, that either no re-action takes place, or merely partial and irregular indications of it in the pulse and on the surface. Now in these last mentioned examples, there really is congestion in the venous system, including the right side of the heart under that name as well as those vessels which carry the black blood; but having entered into these morbid states in the treatise just alluded to, little more is necessary than to add, that from whatsoever cause those states may originate, their pathology and treatment are similar. In strictness of received phraseology, the congestive forms of disease can

hardly be denominated febrile, since to fever is generally annexed the idea of an equably augmented heat on the surface of the body; but as a deficiency or irregularity of heat generally ushers in the first stage, and as, instead of being followed by a regular re-action of the arterial system, this state sometimes remains unaltered, venous congestion ought clearly to be considered an essential part of the phenomena, in most febrile affections. However the subject will shortly be resumed, in order to illustrate the rationale of the successive symptoms, in what have been called, erroneously, symptomatic fevers, to which it shall be shown, that inflammation stands in the relation, not of a cause, but of an effect, whenever any thing like a stage of chilliness precedes the excitement.

For the removal of the simplest form of the common continued fever, rest, spare diet, and purgatives will be fully adequate if early adopted. These measures indeed should always be enforced, since in the mildest cases, through neglect, an obscure inflammation of the brain or of other parts might gradually arise out of the general excitement. As catarrh not unfrequently occurs incidentally in all the modifications of this disease, whenever it is present it should be strictly attended to, because it sometimes serves as a mask to the insidious progress of a low species of cerebritis. If with a degree of catarrh there be united, confusion and constant uneasiness in the head, with restlessness and general oppression, it will often be safest to abstract a little blood by leeches or the lancet at the outset; and afterwards to prescribe tolerably brisk purgatives with a blister to the sternum or between the shoulders. When sufficient evacuations have been premised, the tepid effusions may be advantageously used in the day, or the warm bath now and then. These measures, succeeded by laxatives during the day, and sudorifics, with now and then a small anodyne, during the night, will almost invariably lead to convalescence: but even in that state the regimen should be abstemious for some time, as strong food and diffusible stimuli might re-produce the fever, or pave the way to chronic derangements of the viscera.

In the severer modifications of the common continued fever, the lancet is an excellent remedy. That form attended with a sub-acute inflammation of the brain may unquestionably be often overcome by a steady perseverance in aperients when exhibited from the very commencement: yet it is much preferable to begin by general or local bleeding, since by such a procedure we greatly shorten the duration of the disease, and more effectually prevent the danger of organic lesion. An impression may be made in five minutes by bleeding, which cannot be made in five days by purgatives; and the influence of these two remedies should always be united in all the inflammatory cases of the common continued fever. It must have been observed from the foregoing descriptions, that the progress of this disease is slow when combined with the sub-acute, and exceedingly rapid when combined with the acute kind of inflammation. These differences should always be recollected as they materially influence the treatment. In the sub-acute kind of inflammation, bleeding may be employed beneficially several days after its occurrence, but the acute is so rapid, that bleeding is only useful or even admissible at an early period. Yet even in those examples where there is sub-acute inflammation, the earlier bleeding can be used the better, because in the commencement, it often cuts short the disease at once; whereas at a more advanced period it very often only so moderates the symptoms, that the cure must be finally accomplished by purgatives, and even these will sometimes require the aid of mercurials. When a disordered condition in the vascular system has existed but a short time, it may be speedily removed by decisive measures; but when it has been confirmed by a longer continuance it can only be gradually overcome. If the practitioner bleed at the beginning of the sub-acute sort of inflammation, the blood, usually should be allowed to flow till the pulse become a small, feeble, fluttering line beneath the finger, whatever quantity be required to produce that effect. On the other hand if he bleed at an advanced period, he must be moderate in the abstraction of the vital fluid: for an error on the side of excess, though it lessened the topical disorder, might then destroy all chance of recovery by irretrievably depressing the general