

exhaustion ; and venesection will then hardly ever remove it, but contribute to precipitate the patient to the grave, by its powerful impression upon the whole system. When called therefore, to any case of typhus, complicated with an acute inflammation, the practitioner should ascertain, as precisely as possible, the duration of the latter, and the state of the general system. If the topical affection has been but of short continuance, and the vigour of the constitution be merely weighed down, and not really exhausted, let him discard the fears associated with false doctrines, and promptly abstract blood, according to the seat and extent of the inflammation, and till the local pain and general oppression be relieved. But if, on the contrary the topical affection has continued for some days, and there are symptoms of a present or an approaching collapse, let not the evidences of any local derangement induce him to hazard general venesection, as he values the life of the patient, and his own reputation. I have been often consulted in typhus, at the critical moment when the inflammation had advanced so far as to render the propriety of decided practice very questionable, and yet not entirely to preclude the employment of depletion. In such instances of uncertainty, it may be assumed as a principle, that local is preferable to general blood-letting ; and in conjunction with blisters and purgatives, it will sometimes surpass the expectations of the practitioner. There are circumstances which will even justify the simultaneous employment of local blood-letting and diffusible stimulants in typhus ; as for example. when the stage of collapse approaches, and the head or chest, from the previous one of excitement, has become oppressed with an engorgement of blood, which is rapidly overpowering the vital energy. In such lamentable instances, although blisters, laxatives, and mercurials, may be conjointly serviceable, the immediate chance of relief is from the local abstraction of blood, by leeching our cupping, and the exhibition of wine ; the first with a view to relieve the topical accumulation, and the last to support the system under the evacuation. What was formerly said about the combination of purgatives with cor-

dials in the last stage of simple typhus, may tend to illustrate the union of these seemingly inconsistent, but sometimes efficacious means, against the conjoint use of which the ingenious Dr. John Brown has so indiscriminately protested (18).

General and local blood-letting then, it will be perceived, are sometimes absolutely necessary in typhus ; at the same time it must be recollected, that though the reduction of an acute inflammation may be paramount to every other consideration in the treatment, yet the system cannot bear so large and repeated losses of blood in this fever as in simple acute inflammations, such as gastritis, unconnected with contagion. In support of this opinion, I might confidently appeal to the results of my own practice ; but proofs must be familiar to every unbiassed and experienced physician. We may indeed have ocular demonstration of the fact, by attending to external inflammations complicated with the genuine typhus, which are well known to require a less abstraction of blood than those conjoined with an ordinary fever. Nevertheless, the distinctions of typhous and inflammatory fever have, in a practical view, been insisted on too forcibly by many authors, who erroneously conceive that these affections require almost opposite modes of cure ; whereas they have many appearances in common, and are remediable upon similar principles. Nothing perhaps can be of more practical consequence, than to note accurately the various stages of acute diseases, from their commencement to their termination ; for unless this be done, the disputes may be endless about their modes of treatment, which must correspond to the leading phenomena of

(18) No stronger proof could be adduced of the correctness of the views entertained by our author than his admission that the combination of stimulants and evacuates in fevers is not necessarily incompatible. It shows very conclusively that he is not wedded to the exclusive doctrines of the fashionable theorists of the day. Of these it is well known that one party denounce stimulants as altogether inapplicable in any stage of typhus ; while an opposite party are no less hostile to depletion, whether by general or local blood-letting or purgatives. It happens in this, as in most other cases that the middle path is the safest and the best.



each stage. In all fevers of an open character, or in which heat and arterial re-action are developed, there are, to pass over the first, two grand stages, one of excitement, and another of collapse; and it is in the former that depletion is so excellent, while it is always dubious, and often extremely dangerous in the latter. In violent cases, the stage of excitement soon passes away, and then come those malignant symptoms, as its effects, which, viewed independently of the preceding one, have contributed to mislead so many pathologists and practitioners. Let the circumstances under which remedies are used always be carefully noted, and the points at issue, in regard to the treatment of fevers, will soon be satisfactorily settled.

When the presence of an acute inflammation in typhus imperiously calls for venesection, the first operation should be made as effectually as possible, for the reasons already advanced. The change which a temporary suspension of animation produces, is often strikingly beneficial in phlogistic diseases. Fully satisfied of this, it has long been my practice to order patients, labouring under acute inflammations of the viscera, to be bled until some faintness supervened, that syncope if possible might be insured after the blood has been restrained. But, as in the ordinary manner of performing venesection, syncope can only be caused by very copious depletion, it is a desideratum in the treatment of the inflammatory typhus, to induce it with as little loss of blood as possible; and this may be best accomplished by bleeding from a large orifice, the patient standing, properly supported, erect upon the feet; for ten, twelve, fourteen, or sixteen ounces taken away in that position, frequently have the desired effect, under all the forms of the inflammatory typhus. When there are obstacles in the way, to prevent the performance of venesection in the above manner, it may be done while the patient is placed on the breech, with the trunk perfectly erect; for even in that posture, faintness will come on much sooner, and consequently with a smaller loss of blood, than when the body is recumbent. Or the vessel may be opened as the patient lies flat upon his back, and about five or six ounces

allowed to flow, when his trunk should be suddenly elevated to a right angle with his lower extremities, and this will often cause an immediate degree of sickness, and soon lead to faintness. In some plethoric subjects, however, it is often desirable, that the vessels should be relieved of their extreme fullness, and therefore it is best to bleed them supine, as more blood can be obtained in that than in any other position. On the contrary, in weak or highly irritable habits, when it is frequently of the utmost consequence to save their strength for an ultimate struggle, we should use every expedient in our power to make the loss of blood as little as possible without stopping short in the reduction of any topical inflammation, and this ought especially to be considered in typhus, since the fever may run a determinate course even when the inflammation has been arrested. This is one argument which might be brought amongst many others to prove, that fever is not dependent on inflammation for its existence, as some of the most enlightened pathologists now contend. But that the inflammatory typhus, like the simple, may be extinguished in the commencement, the following cases will exemplify, and many others in my possession could be adduced in support of this point.

Mr. Cavel, an intelligent pupil of mine, exposed himself much to contagion, by remaining long about the patients, while he assisted me in taking notes of extremely severe cases. For several days prior to the coming on of the urgent symptoms, he felt considerable inability to perform any accustomed exercise of mind, having no inclination to move unless compelled from absolute necessity. He had, besides the loss of muscular power, some slight pain in the head, with soreness of the throat. On the 16th of the month, while in the street, he was attacked with a most violent pain in the head, back, and limbs, attended by great languor and oppression. The soreness of the throat increased, the skin became hot, the tongue foul, the eyes blood-shot and glary, and pressure over them gave much pain. His pulse in the evening was 138 in the minute, strong and hard. On the morning of the 17th, it was 127, and still hard, and he was



bled, while it yet continued at that rate, to the amount of about twenty-four ounces, which altered it but little in frequency, though it became not so resisting as before. In the evening of that day, the fever running high, he was bled to about eighteen ounces, when his pulse sunk to ninety; but though it rose a little afterwards, all pain of the head left him till the morning of the 19th, when it returned and was accompanied with considerable giddiness. These symptoms were removed by another bleeding to the amount of eighteen ounces, from which time he had not any return of fever, having taken no medicines, except purgatives to relieve the bowels. Mr. Cavel, without being stout, was muscular and well-organized, and though he lost sixty ounces of blood in the three operations, and was very freely purged, yet he soon regained his former strength and activity (19).

Not very long afterwards, while considerably fatigued, I sat down on the beds, for some visits successively, in taking notes of the cases of typhus which were under my care. In a few days, I experienced an exceedingly uncomfortable weight about my stomach, attended by a capricious state of the appetite, clammy tongue, languor, and occasional chills. These feelings increased for three days, when a dull head-ache came on, and a great disinclination to muscular and mental exertion; but having some important duties to perform, I dragged myself about for four days longer, though at nights I obtained little sleep. On the Sunday morning a greater effort than usual was necessary to force myself into action, but I prescribed for several cases of typhus and also for some of the puerperal fever, in two public Institutions which I then attended; and in returning homeward, excessively exhausted, I was suddenly attacked with great pain, and swimming in the head, while so overpowering an oppression came over me, that I felt as if I should have fallen in the street. With con-

(19) We recommend the attentive perusal of these cases to those physicians who so stoutly deny that typhus fever can be arrested in its early stages. They will be found instructive moreover as practical illustrations of the views of our author.

siderable difficulty I reached a carriage not far distant, but the rattling of the wheels upon the pavement so greatly increased the uneasiness in my head, that, in order to avoid it as much as possible, I was obliged to be driven a very round-about-way to my house, which I reached about five o'clock in the evening. The pain in my head was then so intolerable, that I rashly took sixty drops of laudanum, and went to bed soon afterwards in a state of strange confusion. This dose shortly threw me into a disturbed sleep, in which I had the most horrible dreams. About ten o'clock I awoke with an almost indescribable sensation in my brain, but I endeavoured to rally the mental power which I had left, and, by repeated efforts, commenced an examination of my symptoms. It felt to me as if an immense weight were pressing down the bones of the head, and as if the brain were re-acting against this pressure, by violent and rapidly successive throbs; and these sensations were much augmented by attempting to move my head, which brought on a severe giddiness for some time afterwards. On pressing my fingers over my eye-balls, each was very tender, and both noise and light were exceedingly offensive; but, finding that a succession of human figures passed before me when left in the dark, I requested that a faint light might be kept in my chamber. My tongue felt dry and rough, my skin seemed pungently hot, my pulse was exceedingly rapid, and somewhat resisting; but the cause of all the disease seemed fixed in the brain, for I had no uneasiness in the spine, chest, or abdomen. My feelings most forcibly convinced me, that I laboured under inflammation of the brain, and I desired that a surgeon might be sent for, to bleed me copiously without delay. About eleven o'clock, while my brain gave me the sensation as if it were almost bursting from fulness, I was bled for the first time, till I nearly fainted, and immediate and great relief succeeded: but as the blood drawn, which amounted to eighteen ounces, was buffy and cupped, my medical friend requested to bleed me again, and as soon as the faintness left me, twelve additional ounces were abstracted, which nearly induced syncope. After the second bleeding, very little uneasiness remained in



my head, and the overwhelming oppression, under which I before laboured, now almost entirely vanished; so that in fact the loss of thirty ounces of blood really seemed to recruit my strength. Ten grains of calomel with about the same quantity of jalap were given to me, and a mixture of salts and senna was repeatedly administered in the night, till copious evacuations by the bowels succeeded. My feelings throughout the whole of Monday were comparatively comfortable, and nothing indicated any disturbance in the brain, except a sensation of lightness, augmented on moving the head. Before the first bleeding, my pulse, I was told, ranged above 140 in the minute, but it was somewhat under 100 all day, and as night approached I had a disposition to sleep, and obtained some, broken however by disagreeable dreams. On Tuesday morning, hardly a symptom of disease appeared to me to be left, but several friends calling to inquire after me, I conversed a little with each, and towards the afternoon found myself exhausted and restless, and I had an excessive thirst. As the evening advanced, whenever I closed my eyes I was harassed with a succession of human figures; but it was remarkable, that none of these were representations of the persons who had visited me, all having faces, with one exception, which I had never before seen. The former sensation in my brain returned, and became so distressing, that I covered my head with a napkin steeped in cold water, but it gave me no relief, and the night was passed in strange and restless confusion. On the Wednesday morning the affection of the brain was if possible more urgent than ever, and I felt so exhausted, that if it had been to save my life, I scarcely think that I could have carried a cup full of water to my lips. At an early hour, a medical friend paid me a visit, and I requested him to bleed me, having an impression on mind, that I was verging towards a state of stupor from vascular fulness of the brain. As the operation appeared to him necessary, he bled me till I was on the point of fainting, but I believe that perfect syncope did not take place. For perhaps nearly half an hour, however, I had a feeling of utter exhaustion, combined with a creeping coldness, numbness, and tingling over

all the body; and it then occurred to me how easily such a state might terminate in death. As soon as I was able, I requested a little wine and water. A mouthful of this diffused almost instantaneously a feeling of general heat, and the exhaustion gradually disappeared. No uneasiness whatever now remained in my head, and though twenty-five ounces of blood had last been drawn, my strength again seemed to be renewed by the operation. An ounce of West Indian castor oil was prescribed for me, which operated often and powerfully during the day; yet in the evening I sat up with a great deal of pleasure till the bed was made. Soon afterwards I became hot and restless, and about midnight I was in a high state of irritation; but I got out of bed till I grew perfectly cool, and then lying down again, slept soundly, and from that time recovered with rapidity; though for more than a month afterwards very slight causes made my head ache much.

During the whole of my illness I felt very desirous to be able to recollect the symptoms as they arose, and the above is, I believe, a tolerably correct transcript of my feelings, which may serve to show, that under an intense inflammation of the brain, some of the intellectual powers may remain entire. The attack was no doubt rendered much more severe than it otherwise would have been, by my persevering to go about with the incipient disease upon me; and I merely mention this circumstance as a caution to others, for I have known some practitioners lose their lives from a similar procedure. Few men live so much for the public and so little for themselves as medical practitioners; but as a general rule, they should make a point of resting immediately when attacked with the symptoms of fever, because the arduous duties of their profession may render the mildest seizure dangerous. I have never seen any medical man labour under what is called idiopathic fever, in whom the brain was not less or more affected; and this was probably owing to the previous and almost constant exercise of it as an instrument of thought, by which it unquestionably acquires a disposition to disease. It was remarkable, that during the attack, I had an unceasing desire to be bled whenever the symptoms be-



came urgent. This arose as much from instinct as from reflection; and in severe affections of the brain from vascular fulness, I have known the same desire as strenuously urged from the mere impulse of feeling, by persons who were not of the medical profession. The general oppression was exceedingly great in my case, and probably dependent in a great measure on the cerebral disturbance. If that oppression had deterred my friends from bold depletion, the result would doubtless have been speedily fatal; but so beneficial was the first and the last bleeding, that I felt as if a load had been removed from me as soon as the blood began to flow freely from the arm.

In general, however, I am not an advocate for large and repeated venesection in the inflammatory typhus, having usually seen one or two moderate bleedings sufficient when followed up by purgatives, blisters, leeching, and alteratives; but even whenever so timely employed, whether the bleedings be large or moderate, they will sometimes fail with every other measure, especially when the inflammation, being removed from one, attacks another organ, which is more liable to happen in typhus than in common fevers. In modern publications it is perhaps too much the *fashion*, if such an expression be allowable in science, to exhibit the successful, and to keep the unsuccessful cases in the back ground; but those who are most fortunate with evacuations in the general result, cannot deny, that there are exceptions to their efficacy sufficient to show, that we still stand in need of considerable improvement. It was the custom of Hippocrates and Sydenham to publish cases of failure as well as of success: and the former might be made fully as useful as the latter, by serving, like charts, to guard others from the mistakes which had been previously committed in practice.

On the publication of the second edition of these illustrations, the largest quantity of blood, which I had ever ordered to be drawn in the inflammatory typhus amounted to about fifty-four ounces. The case occurred in a robust and middle aged man, and was from the commencement attended with pleuritis, though it had originated from contagion. Ear-

ly on the second day of the attack, twenty ounces of blood were taken from the arm, which produced a marked relief; but in about twelve hours, the inflammatory signs again becoming prominent, eighteen ounces more were drawn, with even a better effect than before, and the patient appeared to be convalescent for about two days. But having unadvisedly drunk too freely of strong ale, the pleurisy returned, with violence, for which about sixteen ounces were promptly abstracted, and a large blister applied to the side affected. From this time, the pectoral symptoms, with the typhus fever, rapidly receded, though the patient had a tedious recovery on account of the state of weakness to which he had been reduced; and it is deserving of notice, that when there is a relapse of inflammation in some weak part, the recovery is more slow and uncertain than when no such thing occurs. In some instances of pleurisy, arising in genuine typhus, I have seen depletion commenced under as favourable circumstances as in the above, and yet it failed; an embarrassed condition of the brain with muscular tremors supervening, under which the breathing became exceedingly laborious for some time before death. The brain and lungs often seem to have a reciprocal influence upon each other in fevers, especially of the contagious kind, so that it is not uncommon to see the lungs become disturbed from an affection of the brain, and the contrary; but when disorder is once decidedly established in both organs at the same time, the case is commonly dangerous, especially when there is a staring, glary eye, which is always a bad symptom even when the brain alone is affected. In that species of inflammation which attacks the bronchia, the lancet should not be employed, even in young and robust subjects, with the same freedom as in inflammation of the pleura; and when it attacks weak habits, or persons advanced in life, still greater care is then necessary, for in such, the loss of much blood will sometimes be speedily mortal, though in the beginning they generally bear local bleeding and blistering with advantage. In most pulmonary affections, and particularly of the bronchia, the warm bath is a remedy of considerable power; and the pectoral symptoms