

the *early* history and treatment of mania; and the man who can supply it, will deserve and receive the gratitude of his fellow-creatures. As the Retreat is among the best institutions existing for insane persons, I could wish, that its humane and enlightened conductors, in particular, would closely direct their attention to patients *recently* afflicted with mania, when such are admitted; for my observation certainly induces me to believe, that medical treatment, at an early period, is far more efficacious than the ingenious Tuke has been led to suppose. But as this opinion is entirely deduced from the *incipient* cases which have now and then occurred in my private practice, it is offered with all the deference which becomes a comparatively limited experience in this disease. It was deposed by the late Dr. Willis, that *nine persons out of ten recovered*, who had been placed under his care, *within three months after the attack of the disorder*. His deposition speaks volumes in favour of a proper treatment in the incipient stage of mania; and I cannot but express a most earnest wish, that it may be in the perpetual recollection of all those who are intrusted with lunatics. In many instances, madness is most distinctly foretold by great mental agitation and by great irregularities in the circulation, and then bleeding and purging may actually ward off the attack. Some patients of this kind have a most urgent desire to be bled from the mere feeling of uneasiness about the brain, and this desire ought never to be disregarded, for if it should, the feeling of uneasiness may become so unsupportable as to prompt the sufferer to make an attempt upon his life. Where the throat had been thus ineffectually cut, I have known the mind at once restored to tranquillity from the loss of blood, a circumstance which is much in favour of the preventive power of venesection in threatened insanity. Even during the progress of madness those cases will hold out the most promise of recovery, where the clearest signs of bodily disease are apparent; and on the contrary, those cases afford the least hope, where insanity exists without any decided mark of the general health being disturbed.

## BRAIN-FEVER

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THERE is an interesting disease, which follows intoxication, and as it forms a sort of connecting link between mania and fever, and as it has been frequently presented to my observation, I shall now offer a few summary remarks, relative to its nature and cure. It is well known that a simple fever is frequently produced by intoxication, short stages of oppression, excitement, and collapse succeeding each other after the debauch: they are generally so mild as to terminate spontaneously, without immediate prejudice to health; but sometimes medical assistance is required, to prevent their assuming a threatening aspect. In other instances, intoxication has a more powerful influence, and leads to inflammations in some of the vital organs, or occasions venous congestions, which are not followed either by high or regular excitement of the arteries. The disorder in question is generally of the last mentioned kind, for it seems to be accompanied with partial congestions of the brain and liver, from which, together with nervous irritation, it perhaps derives most of its peculiar characters.

This disease most frequently occurs in *habitual* drunkards, and especially when, after repeated fits of intoxication, they suddenly lessen or leave off their ordinary stimulus for a time. The first feelings of indisposition are lassitude, indistinct chills, loathing of food, uneasiness in the head, disturbed short slumbers, anxious countenance, and oppression at the pit of the stomach; and these are followed by retching or vomiting, white moist tongue, wildness and quickness of



the look, weak rapid pulse, general irritability, watchfulness, tremors of the hands, and dampness of the skin increased by the slightest exercise. Confusion of mind, or forgetfulness supervenes, which passes on to a state closely resembling mania. The patients suppose that their affairs are ruined; or that certain persons have conspired to poison or shoot them; or that their friends have deceived or deserted them; or that they are confined against their inclination in a strange place. Occasionally they imagine that they see frightful objects, the impressions of which are so forcible, that they call loudly for assistance to drive them away. At other times, they declare that vermin are crawling over the bed or about their clothes; or that bright or dark spots are floating in the atmosphere; sometimes they fancy that they hear remarkable noises in the room or at a distance; and in other examples, alternately listen and speak, as if they were conversing with one that was present. They are often intent upon calculations, buildings, projections, counting or picking up money, settling accounts, or some such imaginary employment; and if you attempt to address them, they will either unheedingly pursue their occupation, or abruptly tell you that they must not be interrupted. In short, they are either earnestly engaged with business immediately before them, or their attention is wholly engrossed by conspiracies, suspicions, dangers, or the like; and it is remarkable to observe, how the expressions of the countenance vary, according to the nature of the predominant impressions. If the patients be flatly contradicted, they are mostly very pertinacious in their opinions, and easily excited into passion; but if they be soothingly dealt with, they will now and then answer certain questions mildly, and even distinctly; nevertheless, if many interrogations be put to them in succession, they grow confused, and relapse into their former incoherence. Sometimes they mistake the names of things, or the pronunciation of words; and although they generally recognise most of their acquaintances, they load some of them with abuse on trivial occasions, and request the friendly interference of others.

Most of the symptoms enumerated continue from four to ten days, but cases less immediately urgent may be considerably

more protracted. Some examples, indeed, which occurred to me existed, from first to last, nearly six weeks, and two assumed the character of confirmed madness, which were finally cured; so that there can be no question but this disorder may identify itself with the true mania, in peculiar subjects. When convalescence is not restored within the first month, there will be a risk of long continued, if not permanent, alienation of mind; as the most strongly marked cases terminate successfully or mortally before that period. If a tranquil and long sleep can be procured in the commencement of the disease, recovery will commonly follow apace; although I once lost a patient unexpectedly in convulsions, after he awoke from an apparently quiet sleep of six hours. Indications of coma or convulsions; perpetual watchfulness; excessive irritation; violent and often renewed struggles; very rapid and thready pulse; frequent vomiting; extremely cold skin; subsultus tendinum; and especially small contracted pupils, with a degree of strabismus, are among the most unfavourable signs. Those patients who have been driven to intoxication from some great affliction, are generally in imminent danger; for during the progress of the complaint, their raving incessantly turns upon the recent calamity, and produces an irritation and exhaustion most difficult to be counteracted. But confirmed drunkards, who have previously laboured under chronic hepatitis, or some similar organic affection, perhaps stand the worst chance; at least I have seen two subjects of this kind, who sank rapidly under this disease.

In all I have now attended forty two cases of this disease, and out of the first sixteen, four proved fatal, but only three of the remaining twenty six; the greater success in the latter having appeared to me chiefly to depend upon some differences made in the method of treatment. No more than two opportunities have occurred to me of examining the bodies of patients after death; and in both of these, slight congestions were found in the brain and liver, while the other viscera appeared natural. Yet I have known apoplexy terminate fatally, without more decided evidences of derangement having been exhibited by dissection; and it is an established fact, that in some subjects very moderate congestions of the



brain will extinguish life. This disease invariably occurs during the existence of that general collapse which succeeds intoxication, when the tone of the heart and arteries is diminished, and when the venous system must consequently be more or less in a state of congestion; and of this congestion the brain more especially appears to participate,—as may be inferred from the uneasiness felt early in the head, the tremors of the hands, the subsequent derangement of mind, the occasional supervention of coma or convulsions, and the appearances on dissection. Yet the sense of load, which occurs at the commencement about the epigastrium, the dark unnatural colour of the stools, and the two morbid examinations before noticed, render it probable, that the liver is also usually affected. While it is equally evident, that the tone of the stomach is greatly impaired, and the functions of the skin much disordered on the first attack; and though, during the progress of the disease, the stomach generally acquires the power of retaining whatever may be exhibited, the skin continues moist and relaxed. The peculiarly irritable state of the nerves induced by previous habits, the collapse of the system at the time of sickening, the venous congestions, and the subsequent efforts of arterial excitement, all tend to produce and modify the phenomena of this disease.

In very confirmed, old, or enervated drunkards, the general collapse of the system, at the time of the attack, seems to prevent the developement of any thing like an equable excitement; and we find the heat of the surface in that fluctuating or partial state, which often attends congestive fevers of the irregular kind. But in young or vigorous men, who have not been long or regularly accustomed to inebriation, sometimes a stage of general though imperfect excitement follows that of oppression and these different characters of the disease, as modified by peculiarity of constitution, should always be borne in mind, for they require correspondent variations in the treatment. In debilitated and habitual drunkards, for instance, I have invariably seen blood-letting prejudicial even at the onset; and though mild purgatives are at that period beneficial, they cannot be safely exhibited at an advanced stage. On the contrary, in constitutions that have not been

shaken by reiterated drunkenness, I have known early and moderate venesection of much use, especially when followed by active aperients. For a long time I firmly believed that depletion was always dangerous in this disease; but as I had imbibed this prejudice from having witnessed its injurious effects in the advanced stages, so it has been removed, by my having since seen it beneficial in the beginning of numerous cases. Yet I am fully persuaded, that there are not many instances where the lancet is really requisite; and also, that there are few where purgatives should be omitted in the commencement. On account of former habitudes, patients must generally be allowed a limited quantity of diffusible stimulus, but particularly those who have long been hard drinkers; since it is to them what ordinary food is to temperate persons,—it cannot be abstracted for any length of time without exhaustion being induced: indeed, when judiciously administered in this disease, it is often highly serviceable in allaying irritation, and communicating an energy to the heart and arteries, by which the equilibrium of the circulation may be ultimately restored. But as these are merely desultory hints, a summary and connected plan of the treatment shall be delivered.

In the first stage of this disease, the former mode of life, and the present condition of the patient, must be accurately investigated. If it should happen, that he has long been addicted to the free use of spirituous or vinous liquors; that the pulse is weak, and the face very pale; that the surface is clammy and cool, or in a variable and irregular state as to temperature; and that there are strong signs of muscular relaxation,—why then all thoughts of venesection must be abandoned, even at the beginning. The abstraction of blood, under these circumstances, would only increase the venous congestion, by further diminishing the force of the heart and arteries; and would be almost as reprehensible as in the last stage of the simple or congestive typhus. In such cases, the bowels should first be opened by moderate doses of calomel, jalap, and the sulphate of magnesia; care being always taken to support the strength under their operation, by an occasional draught of warm negus. When the bowels have been suf-



ficiently evacuated, about two or three gallons of tepid water, strongly impregnated with salt, should be dashed over the whole skin, which ought to be immediately dried, and well rubbed with warm flannels. After this operation, the patient should be put to bed, and about forty or fifty drops of the tincture of opium exhibited in a little warm wine, and repeated at the interval of two or three hours, provided sleep be not in the mean time procured. This treatment will occasionally restore the patient without any other means; but as in a large majority of cases, it only alleviates the symptoms, it will generally be requisite to follow it up by repeated doses of calomel and opium, which, together with the use of the tepid affusions, will rarely fail. Two or three grains of calomel with a grain and a half of opium, every six or eight hours, will be sufficient doses of these medicines on the first day of their administration; and after that period it will commonly be better to lessen the quantity of the opium; and as soon as the action of the calomel is at all developed on the gums or salivary glands, it should be entirely omitted, as its effects, for the most part, continue to increase for a few days afterwards.—The tepid affusions may be used three or four times in the twenty-four hours, if the patient should be very furious or restless, but in general twice will suffice in that term. If the water be well impregnated with salt, the skin properly rubbed, and the opiate exhibited in warm wine after their application, a tendency to quietness or sleep most frequently succeeds; nay, there will not only be a diminution of the nervous irritation, but likewise an improvement in the state both of the pulse and the skin. If under these measures the bowels should not be daily moved, some mild aperient, such as castor oil, may be occasionally exhibited; but as weak and habitual drunkards cannot long bear even moderate evacuations without prejudice, laxative enemata should generally be substituted after the fourth or fifth day.

The exhibition of diffusible stimuli must be regulated, first by the preceding habits, secondly by the effect produced, and thirdly by the quantity of opium administered. A little of their usual beverage must be given now and then to habitual drunkards; and if it should be found to lessen the frequency of

the pulse, the general irritation, and the tremors of the hands, we have certain tests of its utility; but if it should quicken the pulse, augment the irritation, and increase the tremors of the hands, it must be omitted, and malt liquor substituted. By reason of such patients having been long accustomed to stimulation, they can bear larger and more frequent doses of opium than ordinary persons; and when it is freely exhibited, it will seldom be necessary to give much wine or spirits, even to the hardest drinkers. At the same time, as the leading object of the administration of this drug is to remove irritation, and induce sleep, its effects should be assiduously noted, that it may not be too liberally given. However efficacious opium may be under judicious management, I have seen and heard enough to be fully convinced, that it is a very perilous practice to administer it in too large and repeated doses, since apoplexy, coma, or convulsions, may be thereby produced.

When this disease occurs in tolerably robust subjects, who have been addicted only to occasional intoxication, purgatives must be more liberally prescribed, during the first two or three days in particular, than in habitual and enfeebled drunkards; and though in the latter, opium may often be given with advantage at an early period, yet in the former, experience has taught me, that it should hardly ever be exhibited until the bowels have been freely and frequently evacuated. If I had sooner known the necessity of this precaution, I believe that my success would have been greater; but as I fell into the error of administering opium indiscriminately in every stage and variety of this complaint, I am most anxious that it may be corrected here, for the sake of others. Even in *habitual* drunkards, I am quite confident, that it is always best in the beginning of the disease, to open the bowels before the exhibition of opium: and to *occasional* drunkards, this observation may be extended with increased force, since in them the purgatives must be employed, not only at the onset, but during the progress of the distemper. In such persons, I mean occasional drunkards, it has been customary with me for some time, to use purgatives and the tepid affusions in the day, and calomel and opium in the night; and this plan, combined with a light diet, has rarely failed of success. In some few in-



stances of this nature, I have known venesection requisite soon after the first seizure, when the brain appeared more than usually disordered by venous congestion, or arterial determination; but rarely more than eight or ten ounces were abstracted at once, and the operation never repeated beyond the second time. So far as I have observed, blisters are hurtful in every stage and modification of this disease: by increasing both the nervous irritation and the fever, they make the patient more restless and watchful, and thus exhaust his strength.

In occasional as well as in habitual drunkards, purgatives must be limited to the early periods of the disease; because they are most pernicious in the advanced stages, to which opium and calomel are most suitable; the one to allay irritation, and the other to equalize the circulation. Habitual generally require larger doses of opium than occasional drunkards; and wine is commonly the best cordial for the first, and good malt liquor for the last. The advanced stages of this disease are generally marked by a small and excessively rapid pulse; cold as well as clammy skin; imperfect utterance; low muttering delirium; or sudden, short fits of frenzy followed by heaviness and insensibility; startings of the tendons; a frequently stretched out and very tremulous hand; a want of correspondence in the pupils; general prostration of muscular power; and difficulty of deglutition. When several of these symptoms are united in any instance, every species of depletion is of course out of the question; indeed that is generally the case when the worst forms of this disease have existed several days; and therefore the time of their continuance should always be precisely ascertained, before the practitioner ventures to prescribe. Under the most unpromising appearances, a combination of calomel and opium will sometimes succeed; and whenever there is ground for doubting the propriety of evacuations, it should be administered in preference to every other expedient. If it should be asked, how it is conceived that opium operates in this disease, I confess myself incompetent to give a full or satisfactory answer, and could only say of it as Cicero said of two other medicines:—*Quid scammonæ radix ad purgandum, quid aristolochia ad morsus serpen-*

*tum possit, video; quod satis est: cur possit, nescio.\** It is truly remarkable, that one of the patients whom I attended was a female, who had long been in the habit of taking opium to a great extent, and who was attacked with this disorder on suddenly lessening the doses of her favourite drug. An universal collapse was the first effect, and that was succeeded by irritability of the stomach, dampness of the skin, tremors of the hands, pain in the head, watchfulness, and wandering of the mind. It appears that when, in a state of health, the energy of the constitution has been sustained by diffusible stimuli, their sudden abstraction or diminution so reduces the tone of the heart and the arteries, that they cannot maintain the natural equilibrium of the circulation; and that consequently there is an unusual accumulation of blood in the veins, by which the system is either oppressed, or roused into certain degrees of re-action, according to its condition at the time. Agreeably to this view we find, that those persons who freely indulge in the use of opium or strong liquors, are very liable to congestive and inflammatory diseases, and also to venous hemorrhages. It would lead me too far from my present subject, to point out the various effects of venous congestions; but I may observe by the way, that what are denominated passive hemorrhages, and one class of dropsical diseases, are chiefly dependent upon them. In many diseases, which are supposed to arise from pure debility, the venous system is overloaded with blood, while the action of the heart, and of the whole arterial circle is diminished in force, though it may be increased in frequency; and this loss of balance seems always to take place in the first stage of the disease of drunkards here considered, nor does the circulation appear to be perfectly equalized, at any period of its progress.

For this peculiar complaint there is yet one remedy which I have omitted to mention, that it might be made more prominent by standing alone. Perhaps few practitioners would

\* De Divinatione lib. prim. pag. 11. M. Tullii Ciceronis Opera, cum Dialectu Commentariorum. Edebat Josephus Olivetus, Academiae Gallicae XL Vir. Tomus tertius, qui Philosophicorum alter. Editio tertia, emendatissima. Geneva, apud Fratres Cramer. M.DCC.LVIII.