REMARKS
ON
TYPHUS FEVER.

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IN offering the following remarks to the Fellows of the Royal Med.-Chir. Society, I feel it incumbent upon me to state the grounds on which I venture to present them to their notice, after having, for many years, withdrawn myself from medical practice. I found my claim to their attention upon the circumstance, that, during the period in which I was engaged in the exercise of my profession, I was in the habit of taking ample notes of the cases that fell under my care, and making daily reports of their progress; these reports, at certain intervals, I abstracted and arranged, making remarks upon them, as to the experience that I had acquired, or as suggesting hints for future observations. Since I ceased to practise, I have endeavoured to keep up my knowledge of the progress of medical science, as far as it could be done,

by reading and conversation, and I may more particularly mention, in respect to the present communication, the advantage which I have derived from an intimate acquaintance with some of the most distinguished medical officers of the London Fever Hospital. I shall only further add, that the statements which I bring forward are derived from my own experience and observation, and that it is from them alone that I have deduced my conclusions ; not, as I trust, from any undue self-confidence or arrogant assumption of superior judgment, but from the conviction, that, by this mode of proceeding, the science of medicine is the most effectually advanced.

It appears, from various published reports and documents, that no town in the united kingdom is, in proportion to its population, so obnoxious to typhus fever as Liverpool, where I practised, and, during some years, was attached to the extensive Fever Hospital of that place. My experience of the disease was rendered more ample from the occurrence of two, if not three, of those epidemical invasions of the disease, when not only were the subjects unusually numerous, but the individual cases peculiarly severe. After these preliminary remarks I proceed to the immediate object of my communication.

The points to which I would beg to direct the attention of the Society are, in the first place, the different varieties which typhus fever assumes, more especially during the occurrence of the epidemics; the nature of these varieties, and the general indications

of treatment which are appropriate to each of them. These varieties I shall reduce to three, which I shall name the asthenic, the cephalic, and the gastric,—names which I have adopted, rather as being suggested from the most obvious symptoms of each species, than from any theoretical opinions as to their nature. The leading characteristics of each I shall briefly state to be as follows. In the asthenic variety, the prominent symptoms are deficiency of power or action in all the functions, great prostration of muscular strength, with an equal defect of nervous energy, the pulse small and weak, the intellectual functions rather enfeebled than deranged: there is an uneasy sensation of langour and fatigue rather than absolute pain; the digestive powers are diminished, the secretions and excretions generally deficient, the temperature of the surface little, if at all, increased, and, in short, the whole of the vital actions, as it were, depressed by some sedative influence. I may further remark, that the invasion of the disease is gradual, so much so, that the patient feels it difficult to fix upon the precise period of its first attack; its progress is slow, and, when the disease ends favourably, a long time elapses before the functions acquire their healthy action. The second variety, the cephalic, may be characterized by great excitability, as indicated by increased nervous action, by morbid acuteness of the senses, and, more especially, of the mental faculties, inducing delirium, occasionally subsiding into coma, by watchfulness, pains and morbid contraction of the limbs, the pulse hard, sharp, and quick, the

breathing laborious, the heat of the surface much increased, the tongue parched and the bowels generally constipated. In the third variety, the gastric, the nervous functions are much less affected, while the stomach and bowels present the most marked derangements; vomiting and purging, with acute pains of the respective organs, the abdomen tumid, the bile and the secretions of the abdominal viscera in a deranged condition, both in respect to their quantity and quality; the tongue is foul, the breath and the exhalations from the body generally are offensive, the urine is loaded with various substances, both saline and mucilaginous, while the patient suffers little absolute pain, the mental faculties are not much deranged, and the heat of the surface is scarcely greater than natural. The pulse is extremely variable, but is generally less affected than might have been expected from the morbid state of the system.

The above account is to be regarded as a description, which, I believe, is not exaggerated, of the three varieties of typhus, in their most strongly-marked form, and it is to be considered as some proof of their actual existence, that they have respectively acquired the popular and not inappropriate names of Low, High, and Putrid Fever. There is a symptom, of occasional occurrence, which I have not yet noticed, and which, perhaps, should have been regarded as indicating a fourth variety of typhus,—a cutaneous eruption on certain parts of the surface, sometimes assuming the form of distinct

papulæ, and, at other times, of clusters of papulæ, forming diffused red patches. But although these eruptions were not unfrequently observed, and even gave to the cases in which they occurred the popular name of Spotted Fever, I was never able to refer them to any specific state of the system, nor to deduce from them any prognostic as to the event of the disease. They were seen in all the varieties, the most frequently in the gastric, and the least so in the asthenic. I conceive, however, that they were much less frequent in the epidemics which I witnessed, than they would appear to have been in the fevers of London, and still more so in those of Paris, during the last few years.* With respect to the three varieties of the disease, although I consider them sufficiently well characterized to be entitled to this separation, yet I must remark, that they were very frequently complicated with each other, and that, although in one epidemic, the asthenic, and in another, the cephalic, or the gastric variety, may have been the prominent form which the disease assumed, yet that they were so intermixed as to be referrible to the same origin, modified by some external agent or some constitutional cause.

The next subject for our inquiry is into the nature

* In this, and in other parts of my paper, where I have employed the term *frequent*, or any words of an equally indeterminate nature, I must remind the Society, that my observations were made before the "numerical method" had been introduced into medical writings, which I regard as one of the greatest improvements of modern science.

of this cause, whether external or constitutional, which, in so remarkable a manner, modifies the nature of the disease ; an inquiry most interesting as an object of pathological research, and most important in regard to the treatment of the disease. But interesting and important as is the subject, I regret that I have little to offer but negative observations. I could not perceive that the different varieties bore any relation to the different temperaments of the individuals, nor to their habits of life or previous diseases. The sanguine temperament and the plethoric constitution were as obnoxious to the asthenic as to the cephalic variety, while nothing was more common than to behold the activity of youth depressed by the former, and the langour of age, as it were, excited by the latter variety. Nor could I detect any external circumstance, by which the prevalence of the different varieties could be explained ; no particular state of the weather, unusual moisture or unusual drought, excessive cold or excessive heat, seemed to favour one species more than another. There are, in the town of Liverpool, abundant circumstances to account for the general prevalence of typhus fever. The construction of the habitations of the lower classes of the population is peculiarly unfavourable to health ; the inhabitants are crowded together in rooms that are damp and dark, and without the possibility of the access of fresh air ; and although the people, during their working-hours, are not subjected to the direful operation of the factory system, they are, many of them, immured in close

and heated manufactories, filled with noxious vapours, and thus breathing an atmosphere in every respect destructive of health of body and vigour of mind. I may also remark, that a considerable number of the labouring population of Liverpool are Irish, who, although in their native country they may have experienced a deficiency of food and clothing, had the benefit of fresh air and exercise, which they can no longer obtain in their new residences. But these causes of fever are always in operation, and do not, in any degree, explain the different features which the disease assumes at different periods. Our ignorance is therefore compelled to take refuge in some unknown atmospheric constitution or telluric emanation ; but in what this constitution or emanation consists, whether it be of a chemical or a mechanical nature, what relation it bears to the disease, or how it operates in its production, are points respecting which we have not the means of forming even a plausible conjecture.

The next topic, one of great interest and importance, on which I shall offer a few remarks, is the much-agitated question respecting the mode in which typhus fever is propagated, whether it be communicable from one individual to another, and by what medium. On this point I may venture to give a more decided opinion than on some of those which have passed under our review, because I conceive that the means which I enjoyed of forming an opinion on the subject entitle me to speak with confidence. There are two modes in which diseases are

propagated from one individual to another, by contagion and by infection ; some diseases are propagated by each of these modes exclusively, while there are others that are communicated by both of them, thus giving rise to a triple division of diseases, with respect to their mode of propagation. As examples of the three kinds, I may adduce syphilis, pertussis and variola. I have no hesitation in placing typhus in the third of these division ; there is unquestionable evidence, that it is propagated by clothes or bedding that have been in contact with a diseased individual, while it is equally certain, that the atmosphere of the chamber of a fever patient is capable of communicating the disease. With respect to its primary origin, this, like that of syphilis or variola, is unknown, yet we may still inquire whether, although in the majority of cases it is propagated by contagion or infection, it is at the present time, in any instance, originated. The arguments that can be adduced on this question must necessarily be of that kind which have been termed approximative. If, in a great proportion of cases, and where we have the best means of becoming acquainted with all the circumstances connected with the invasion of the disease, we can refer it to contagion or infection, it is a legitimate conclusion, that it is always produced in this way, although, in certain instances, we may be unable to point out its source.

There is another circumstance of considerable importance, which would appear to be still undecided,—whether an individual, who has gone through

the disease in an acute form, is obnoxious to a second attack. My experience leads me to the conclusion, that there is not the same exemption from the second attack, of typhus, as there is of variola or rubeola, but that the constitution undergoes some kind of change, which modifies the second attack, and mitigates its violence. In the most virulent epidemics, and when the wards were crowded with cases of the worst description, although the nurses and attendants frequently experienced a second, or even a third invasion of the disease, I never knew an instance where this secondary disease was fatal.

With respect to the prognosis in typhus, I consider the second variety as, by far, the most unmanageable and fatal, the most rapid in its progress, and, unless at its very commencement, the least under the power of remedies.

The next point, that to which all our investigations ought to be directed, and in which they naturally terminate, is the mode of cure. And, in answer to the question, what is the best method of treating typhus fever, I reply, to combat the urgent symptoms. So varied is the nature of the disease, under the different forms which it assumes, that the remedies and the general treatment which appear almost specific in one variety, in another may be useless or perhaps injurious. I would illustrate this remark by the effect of the application of cold to the surface, and especially, in the form of effusion, as practised by my highly-respected friend, the late

Dr. Currie. This remedy, in certain cases of the cerebral variety, and used in the commencement of the attack, I have seen produce truly wonderful effects, while in the gastric variety it is at least useless, and in the asthenic may be even injurious. The same kind of remark applies to the opposite plan of treatment, the stimulating system, which fifty years ago was generally adopted by the Cullenian school, as well as to the purgative practice, which emanated from the essay of Dr. Hamilton.

So far as the treatment of typhus fever can be reduced to any general rules, it may be stated, that, in the asthenic variety, our object must be to remove the noxious or depressing cause, should anything of this description be apparent and within our power, and to raise or excite the debilitated functions, both of the muscular and the nervous system.

The indications in the cephalic variety are almost the reverse of those in the former, at least in the commencement of the disease ; we have recourse to depletion and evacuation, cold applications and spare diet. This is the only form of typhus in which general bleeding is even admissible, and with respect to this remedy it is to be borne in mind, that it must be employed, in all cases, with great caution and reserve, for even where it appears to be the most clearly indicated, it is occasionally succeeded by a state of exhaustion, which no medical agency can counteract. The third variety, although perhaps the most distinctive in its character, requires the greatest diversity of treatment, according to the

symptoms of each individual case. We begin with purgatives, their quantity and quality being regulated by the state of the stomach and bowels, and of the system generally. Sometimes these alone are sufficient to correct what has been termed the putrescent tendency of the disease, but they generally require the aid of tonics, stimulants or stomachics, as each of these may appear to be indicated, with a most careful regulation of the diet.

With respect to the individual remedies which, at different times, have been employed or recommended in typhus, I must beg to call the attention of the Society to the very remarkable changes of opinion which have taken place respecting them. When I entered upon the practice of my profession, between forty and fifty years ago, wine was considered the great specific for typhus; if the patient could be induced to swallow it in sufficient quantity, his cure was supposed to be accomplished, and when the case ended fatally, the immediate cause was said to be, that he could not bear the necessary quantity of wine. Yet this profuse and indiscriminate use of wine is now considered as neither indicated by the symptoms of the disease, nor sanctioned by its effects. And an equal reliance was placed in the antifebrile virtues of cinchona, which is now, like wine, only occasionally employed, and that in the latter stages of the disease, or, what may be more correctly termed, its sequelæ.

I have already remarked upon the unsatisfactory results which followed the attempt to employ ex-

ternal cold as a *general* remedy for typhus, and the same remark is no less applicable to the more formidable practice of general bleeding. These opposite, although equally energetic modes of treatment were succeeded by an anomalous and heterogeneous class of what were termed Febrifuge medicines, of which I shall be disposed to say, that their chief merit consists in their being harmless, although even this equivocal merit cannot, I fear, always be allowed them, as they not unfrequently tended to derange the digestive organs, and thus retarded the natural progress of the system to its healthy state.

In concluding my remarks upon the nature and treatment of typhus fever, I would beg to observe, that imperfect and sceptical as they may appear, I have not hesitated to bring them before the notice of the Society, in the hope that I may induce others, who have superior advantages for observation, to investigate the doubtful points, and thus be enabled more effectually than it is in my power to do, to draw the line of distinction between those practices and opinions which ought to be at once discarded, and those which require further investigation. “Non enim sumus ii, in quibus nihil verum esse videatur, sed ii, qui omnibus veris falsæ quædam adjunctæ esse dicamus.”