

elderly patients suffering from this complaint. In some instances, however, of a more irritative form of the disease, I have seen a fresh attack of acute bronchitis brought on by this climate, and one case that I attended resulted fatally from that cause.

It is quite as important to know what patients should avoid any climate as to know what class should select it. Now, considering the great mortality from cerebral affections, and particularly apoplexy, in Malaga, I think that patients predisposed to such diseases should not choose this town for their residence. Nor would I send a patient suffering from chronic rheumatism, or rheumatic arthritis, or neuralgia, to Malaga; as the great difference between the temperature of the day and night, and the heavy dews that fall after sunset, render this town in such cases inferior to other climates, such, for instance, as Western Australia, Upper Egypt, and in some cases Nice. Nor can Malaga be advised to dyspeptic and hypochondriacal invalids as the dietary there is not generally suitable for these cases.

The climate of Malaga was considered by the older native writers, Don Fernandez Barea, Padre Garcia de la Lena, and others, to exert a relaxing and unfavourable influence on the constitution of young persons under the age of puberty. But they regarded this locality as an advantageous residence for the old, and thought the climate a propitious one in which to "husband out life's taper at its close," and calculated, by aiding in the alleviation of the many physical annoyances of the aged, to add to the span of their existence.

In conclusion, I have only to express my opinion, that when a very dry, warm, tonic winter climate is indicated in the treatment of chronic pulmonary disease, especially phthisis, Malaga will be found superior to any health resort in Europe, and only inferior to Western Australia and Upper Egypt.

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ART. III.—*Remarks on Hydrocephalus; its Diagnosis, Prognosis, and Treatment.* By HENRY KENNEDY, A.B., M.B.; Fellow and Censor of the King and Queen's College of Physicians; one of the Physicians of the Cork-street Hospital.

[Read at the Dublin Obstetrical Society, 11th February, 1865.]

TWICE already the attention of this society was directed to the subject of hydrocephalus. On the first occasion I spoke of a form of the disease which was peculiar in this respect—that it occurred

at a more advanced period of life than the more common disease, being met between eighteen and twenty-five years of age—that it was a disease of a very insidious character, and almost necessarily fatal. As the paper is in print, more need not be said about it here. In the second paper some cases of the disease, as met in childhood, were detailed, in which recovery took place under very unpromising circumstances. It is this last phase of the subject I would again bring under notice; for it must be allowed that hydrocephalus is a disease entailing a great mortality. I recollect perfectly well, some twenty years ago, regarding the disease as all but hopeless. I now believe that, though it must still be regarded as a very serious affection, it may yet be looked on in a much more favourable aspect, inasmuch as recoveries are not uncommon, and, what is of more consequence, are directly due to treatment.

Of the nature of this affection there would seem now to be little doubt; and all writers are, I believe, at present agreed, that it is essentially found in the strumous constitution. Cases may, and I know do, occur where the evidences of such a state are wanting; but these are very exceptional, and only prove the rule. Nor is it a trivial matter to have a correct idea of the kind of constitution in which hydrocephalus occurs, for on this turns—necessarily turns—a great deal relating directly to the diagnosis, prognosis, and treatment of the disease. It has been my lot to examine more than twenty cases after death, and in all, besides the mischief in the brain, other organs, as the lungs, liver, and spleen, were likewise diseased more or less by the deposition of tubercle, as it is usually met in childhood. With such evidence I never meet a case of hydrocephalus now that I do not consider and treat as if it were a strumous constitution with which I had to deal. I have stated that the prognosis is modified by the views we take of the nature of this disease, and probably a few remarks on it, as well as the diagnosis, will not be considered out of place.

The diagnosis of this disease, it will be allowed, is often sufficiently puzzling. I do not speak of it when it is fully formed, and it is scarcely possible to mistake it, but at an earlier stage, when it is of every consequence to recognize it. I presume I address few who have not met cases of worm, or gastric fever, as it is called, which have suddenly changed their character—symptoms of water on the brain coming on, and so ending life. The same remark, too, may be made of the other fevers of childhood, such as scarlatina, measles, and hooping-cough, if the latter be a fever—in each and

all of which I have seen the disease supervene, and thus bring to a fatal termination cases which had begun with comparatively mild symptoms. Some of these cases have happened to myself, and more suddenly than was at all desirable, and I know they have occurred to others. Hence the greater need of caution, and being ever on our guard; and were I asked whether these sudden changes occurred in cases commencing with mild or heavy fever, I would at once answer the former.

Now the question may here be asked—why is it that such cases occur, or seem to occur, suddenly, and have we any means of foreseeing them? My answer is, that hydrocephalus is just like other affections in this respect, that its symptoms vary, and some of the more striking of them may be entirely absent, or so little marked as to escape notice. The impression with some is that every case must have vomiting; but, general though this sign be, it is not by any means constant; and anyone familiar with the morbid anatomy found in the brain in these cases, will see at once why it is not always present, for the same parts of the organ are not constantly engaged, nor the origin of the eighth pair necessarily involved. Hence it is that, just as may occur in pneumonia or pericarditis, hydrocephalus may likewise be more or less latent as regards its symptoms, and so may steal a march on us.

In helping us to a correct diagnosis—and I am, of course, still speaking of cases where the disease is obscure—it has appeared to me that much may be gained by learning what goes on during the night. All diseases are liable to exacerbations at this period of the day; but, in addition, we know that sleep is induced, in part at least, by an altered state of the circulation in the brain as contrasted with the waking hours. Hence a disease like hydrocephalus is very apt indeed to be attended by symptoms which show themselves, in the first instance, at night. Whether the explanation be correct or not, certain it is that a knowledge of what goes on during these twelve hours will often materially aid us in arriving at a sure diagnosis, and, if I may so say, foreseeing what is about to occur—a matter of no little moment to us all.

Into the general symptoms of the disease it would not be possible here to enter. They have been ably described by many, though possibly by none more so than by the late Dr. Cheyne, whose admirable work must even yet be considered a standard one on this disease. There are, however, two or three points worthy of a passing remark. Thus, in the class of cases of which I already

spoke, where the disease seemed to commence as gastric or worm fever, I have had occasion often to observe, when head symptoms threatened, a marked change to occur in its type. The pulse has become, in a marked degree, stronger, the skin hotter, and the tongue still whiter. In fact the fever has become much more of the inflammatory type; and this, let it be observed, before any complaint was made of the head. So that such an event occurring should at once put us on our guard.

But again: whilst we know that pain in the head is a very constant symptom of the disease, it is not always present, and I have seen several cases where the nape of the neck was the part of which the child first complained—cases, I mean, which ultimately ended in water on the brain. This is a point of some consequence, as it shows the part of the brain about being attacked, that is, close to the pons and upper portion of the spinal marrow; and besides, I believe our treatment cannot be applied too close to the seat of mischief. It is in these cases, when pain is referred to the neck, that we so often observe the child lying with the head drawn back, and more or less fixed—a state which, I am sure, all present must have witnessed.

Before leaving the subject of the diagnosis of hydrocephalus, I would notice a state, which if not the disease itself, is so very like it as to be worthy of remark here. It is a state with which I have been long familiar; but my recent connexion with the Cork-street Hospital has brought it much more prominently before me. What I allude to is a mixture of typhus fever, as shown in most of them by the presence of spots, with very marked brain symptoms. At certain periods there has been a run of cases of this kind which is quite remarkable. A sketch of two or three of them will illustrate the disease better than any mere description.

CASE I.—Fitzgerald, aged seven years, admitted in March, 1853, with the heaviest fever a child could exhibit. The tongue was dry as a board, and the lips covered with sordes. With this state he had every symptom of water on the brain, except vomiting. He had dilated pupils—one more than the other; sighing; grinding of the teeth; squinting. Finally, convulsions and death.

CASE II.—In July, 1855, a boy of ten years of age was sent into Sir P. Dun's Hospital by Dr. Macready. When I first saw him he had very heavy fever, and was spotted. He was quite

stupid, and hard to rouse; had a marked frown on his forehead, and any complaint he made was of his head. His pupils were both dilated; pulse rapid; discharges from the bowels blackish; and every now and then he had the cry so characteristic of hydrocephalus. But he had no vomiting, nor grinding of the teeth. For my present purpose it is enough to say this boy recovered, but very slowly—the pupils gradually coming round to their normal state.

Case III.—Coleman, aged ten years, admitted to hospital in November, 1855. He had the regular typhus, and was spotted. His tongue was too clean; whilst there was oozing of blood from his lips and gums. Two days later signs of the brain becoming engaged appeared. He had severe pain in the head, and marked screaming; whilst the pulse, previously rapid, fell to 60. From this state he very slowly emerged. There was not, either, in this instance, any vomiting. Other cases very similar to these could be given, but what have been detailed are quite sufficient for my present purpose. They show that in the progress of spotted fever brain symptoms having a very close resemblance, I do not say identity, with hydrocephalus may arise. They differ, however, from the more regular disease in not being at all so fatal; for, though they are always serious, the majority recover, which cannot be said of the other form of brain affection. It has appeared to me that the typhus poison, which was unquestionably present, as shown by the spots, caused such a revolution in the system as to overcome the tendency to engender hydrocephalus, for that there was such a tendency appears to my mind to admit of no question. But inviting though this part of my subject is, I must hasten on.

And now, supposing the diagnosis of hydrocephalus made, what is to be the prognosis? Must it necessarily be fatal? or are there any reasons why, in some instances at least, better hopes may exist? I believe there are; and for my own part cannot doubt that I have now seen several cases, where the disease was well marked, recover, and before concluding this paper shall detail some of them. If, then, there be such cases, and for the present I shall assume there are, it will be well we should be able to recognize them, as on such knowledge it is our prognosis must obviously be founded. The points, then, that appear to me of every consequence in forming our judgment are mainly two. The first, and by far the most important, is the previous history of the child, for the longer the

attack has been coming on the more serious will be the result—I mean before the brain symptoms declare themselves. It will be recollected from what has preceded that we must consider the disease as essentially a constitutional one; and though I cannot state it as a positive fact from *post mortem* examination, I have got a strong conviction that in many cases mischief elsewhere has preceded the appearance of the cerebral affection. In other words, that the latter is but the finale of a state of disease which had been going on long before the brain became engaged. In this view of the matter it will be understood how important it is to get a thorough knowledge of the antecedents of the case, and every point, no matter how trivial, should be most minutely investigated. For myself, I believe that this knowledge is of very much more consequence in forming a correct prognosis than any present symptoms which the patient might present. As, however, it is only the general principle I speak of here, it will not be possible to enter into particulars, further than to say that loss of flesh and appetite, wandering pains through the body, derangement of the bowels, and, above all, the slightest evidence of cough, are amongst the most important symptoms for which we should enquire. Even in hospital cases, where it frequently happens we can get no satisfactory account of the previous state of the patient, a single glance reveals much. It tells us the shape of the chest, and general conformation of the body, besides all those marks which need not here be detailed, but which betoken the strumous diathesis, for it cannot be too strongly impressed on our minds that this it is which makes hydrocephalus such a formidable disease. As a corollary, then, from what has been just stated, it may, I believe, be taken for granted that if we meet the disease in a child otherwise healthy, and with none of those precursory symptoms at which I have glanced, we may have more hopes of the final result, and modify our prognosis accordingly.

In the last place, I would make a few remarks on the treatment of this disease. This, however, will be best done after giving the briefest detail of a few cases, each of which presented some feature of interest. The following is the only case I have seen of what may be called acute arachnitis of the brain occurring in childhood, and I introduce it here as affording a marked contrast to the cases which follow it, and as bearing out some of my previous remarks. I saw the case many years back with my friend, Dr. Faussett, now of Clontarf:—

CASE IV.—A very fine-made boy, of four years of age, was reported to have got a severe fall, a few days subsequent to which he began to complain of pain in his head. This increased rapidly, and was shortly followed by very severe vomiting. He had been dull and listless for a day or two before he made any complaint of his head. The very active treatment used had but a temporary effect in checking the symptoms, and at the end of the second day from the time the vomiting set in, convulsions came on, and the boy died on the fourth day. Examination disclosed a quantity of pure pus, chiefly on the anterior lobes of the brain, rather more being on one side than the other. A number of bloody clots were observed on cutting into the substance of the organ. Some turbid fluid was found in the ventricles.

CASE V.—A boy of eleven years of age was admitted into hospital, after, as it was stated, being a week ill. He had not been treated in any way, and presented all the signs of hydrocephalus in the second stage—his pupils being much dilated, the left the most, and his pulse being only sixty-four. The case passed into the third stage, and the boy ultimately died. But I mention it here because it was the first case I had seen where there was even a hope of life; for, though he died, it was after a very prolonged struggle. This case occurred as far back as the year 1841.

CASE VI.—A boy of nine years of age got symptoms of fever, and very soon began to complain of his head, which he could not bear to be stirred. His eyes were much suffused, and the light caused him great distress. Though he had vomited, it was not a prominent symptom. It was clear the brain was seriously threatened; and the case was the more serious as two children in the same family had already died of water on the brain. With this knowledge I did not hesitate to treat the case very actively. Leeches were applied three times within the first thirty hours, and other measures equally active employed. Under these means the head symptoms steadily yielded, and I had the pleasure of being able to pronounce the boy safe by the eleventh day. His ultimate recovery, however, was singularly protracted, and at this period I had the assistance of the late Sir Philip Crampton. This case occurred in 1844, and I think it right to state that in a similar case now I would use a very much modified treatment; for, though the boy recovered, he showed signs of great delicacy for a long time afterwards. He is now however, a vigorous man, close to thirty years of age.

CASE VII.—In the year 1849, and at a time when there was a regular run of cases of hydrocephalus, a girl, aged six years, was admitted to hospital with all the signs of the disease, in the second stage, well marked. She had very marked rigidity of the neck, and lay with the head drawn back; the pupils were dilated, one more than the other, and the peculiar cry of the disease was only too plainly heard. The pulse at this stage was slow, and she had several fits affecting one side of the body. I confess I looked on the case as hopeless. What was my surprise to find that, after ten days continuance of these symptoms, signs of amendment gradually, very gradually, began to appear. The intelligence improved, the screaming and rigidity slowly disappeared, and the child finally recovered.

CASE VIII.—Hamilton, a boy of six years of age, when first seen in hospital, had every sign of water on the brain. He was very stupid, and had the constant cry of the disease. It is unnecessary to give more particulars, except that he also recovered.

The next case, though ultimately fatal, has too close a connexion with my subject to be omitted here:—

CASE IX.—In January, 1855, Robinson, a girl of twelve years of age, was admitted with all the signs of water on the brain. The fever was of a more intense character than is usually present in such cases, but she made constant complaint of her head, whilst her pupils were dilated to the utmost, and the eyes had the look of blindness which all who have seen this disease must have witnessed; there was also vomiting, and she passed under her; the cry, too, was present. Yet from this state the girl recovered. As the brain symptoms, however, lessened, mischief began to declare itself in both the lungs and abdomen; and, in spite of every care, she ultimately sunk at the end of some weeks; I cannot doubt that strumous disease existed in both cavities. This was a remarkable case, and the only one I have seen where the disease ran this particular course. The patient, I should state, had entirely got free from the head symptoms.

Though I could give other cases, I shall limit myself to one more, very recently in hospital, and seen by Dr. Grimshaw and Dr. Barnes, now in Dublin:—

CASE X.—Harford, a girl of twelve years of age, was admitted



into the Cork-street Hospital on the 21st of December last. She was tall for her years, and thin, and laboured then under a severe attack of typhus fever, being profusely spotted; the brain was much engaged; she was very restless, and rambled constantly, disturbing the ward by her cries. This state continued longer than usual, but finally subsided, and all the signs of typhus had passed away—so much so, that she asked to be allowed up. At this period she began to complain of pain in her head, referred to the forehead, and with this I found that considerable fever had lighted up; the pulse was quick, the skin hot, and tongue furred. From this on every symptom of water on the brain developed itself. The pulse went through the regular stages of the disease, even to the third; the pupils became dilated; the girl quite stupid, and apparently stone deaf, and the peculiar cry was constant; the arms were rigid, though not in a marked degree, but there was no convulsion. Though she swallowed badly, she did not at any time lose the power entirely. From this state, which lasted about nine days, she gradually emerged, and very interesting it was to observe the daily progress. The dilatation of the pupils was the last symptom to yield; and even when she left hospital, a week since, they gave me the idea of being still sluggish. From the commencement of the brain attack till she left was just five weeks. This was a case of great interest, growing up, if I may so say, under our very eyes, and reaching a stage of the disease from which few indeed recover. Still I trust enough has been advanced this evening to give us better hopes for the future, and it was to add my quota of experience on the matter that I appear before you. The idea of a recovery from hydrocephalus, when it has advanced to all but the last stage, is not mine, though I am not able to refer you to an authority in favour of this view, but it has been so little recognized as to be worthy certainly of farther consideration.

And now, in conclusion, a few words as to treatment. I believe, then, that if the case be seen early, and the nature of the disease, already spoken of, be kept ever in view, treatment holds out a reasonable prospect of success. But to be really useful it must be steadily carried out. By this I mean that one part of the treatment should be made to support another. Once, in fact, a plan is adopted, it should be continuous. I know no disease which requires this rule more than the one under consideration. As surely as the rule is broken—that is, that there are too long intervals between the several measures used, so surely will the disease gain ground,

Keeping this principle then in view, an antiphlogistic treatment should, in the first instance, be adopted. Leeching to the head or nape should very rarely be omitted. The number must, of course, vary with each case, and it has appeared to me better to order a small number twice than the whole number at once. With the leeches purgatives will be also given; and the compound used by Cheyne, consisting of calomel and jalap, is not to be despised. When the proper period arrives, blistering is most useful, but let it be done with a will; for it has happened to me on different occasions to see a blister the size of a crown put on a child's head who had the disease. This is not the way to conquer such an affection, and is only losing precious time. Let the whole head be blistered, and the surface dressed with some irritating ointment, and then good may be done.

For so far I have spoken of measures long known and used; but, I need not add, with anything but satisfactory results, and yet I look upon this part of the treatment as most essential, but it is not to be trusted to alone. And here it is, it appears to me, a decided advance has been made in the treatment; for, while the measures detailed are being put in force, I now give wine at the same time, according to the age of the child. Whether this plan has been adopted by others I cannot say; I do not know of such. It was gradually that it forced itself on my mind, but of its value I have not now the slightest doubt. All the cases given in this paper, which recovered, were so treated, and I may state that the last detailed got  $\frac{3}{4}$ vi of wine daily, for a period of twelve days, and this in a child of only twelve years of age. No one, however, will jump to the conclusion that all cases recover because wine is given; this is not what I would convey, nor could it in reason be expected, but only that it holds out the best prospect of success, and has, I firmly believe, been directly instrumental in saving life. It will be observed too that the use of the wine should be begun as early as the case and symptoms allow. In this way, whilst we combat the inflammatory symptoms by antiphlogistics, we, on the other hand, sustain the system by the wine—so that the plan is a union of the two. And still keeping in mind the essence of the disease, it seems to me to have everything to recommend it, in addition to the experience detailed this evening, and to which more could have been added.

Of particular medicines I have little to say. Mercury, so much in use formerly, I now use only as an alterative or occasional

purgative, and seldom, in the former way, beyond the second or third day. I had seen a large number of cases where its specific action was induced, and yet I have notes of but one recovery under these circumstances, and now trust to other means. The medicine which seems to me to answer best is the hydriodate of potash. I had read of its use in these cases, and am sure I have seen benefit from it.<sup>a</sup> Before that time I had myself given other salts of potash, with the idea that their diuretic action would be useful; and one very striking case recovered while the child was getting wine and acetate of potash. To each dose of the hydriodate I also usually add from three to five drops of the tincture of digitalis, as being a medicine which Cheyne considered of value, and used accordingly.

In conclusion, then, I have only again to repeat that the union of the two plans of treatment, the antiphlogistic and the stimulant, are the means on which I now mainly rely in this most intractable disease, and all the cases which I have seen recover have been so treated.

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ART. IV.—*On Hospital Dietaries.* By JOHN BEDDOE, B.A.,  
M.D., F.S.S.; Physician to the Bristol Royal Infirmary.

THE practical application of dietetic science and experience to the victualling of large bodies of men has of late years been frequently a subject of discussion; but such discussion has almost always been set on foot either by some supposed shortcomings in the feeding of soldiers or of paupers, or by real or apparent excess in that of criminals. The experience of our hospitals has seldom, if ever, been called in to throw further light on these matters; nor am I aware that any general view of hospital dietetics has been put forward, except in a short paper by Dr. Steele, late of Guy's, in the *Social Science Transactions* for 1862. It will be my aim, in the following pages, not so much to insist on the importance of dietetical considerations in therapeutics, as to utilize the practical knowledge of the subject embalmed in the diet-scales of our infirmaries and lunatic

<sup>a</sup> This medicine has, I find, been recommended by several; amongst these are the names of Maunsell and Evanson, Copeland, Willshire, Leney, and Wood of Philadelphia. But none seem to have used it so largely as the late Dr. Coldstream.—(See a paper of his in the *Edinburgh Monthly Journal* for December, 1859.)