with little bleeding. Very severe symptoms, however, followed it. Some bleeding occurred—not, however, to any alarming extent, and easily controlled by plugging the wound. It was accompanied, however, by a succession of most severe fainting fits, so severe that the patient seemed likely to sink. At length, however, he recovered; and the pulse rapidly assumed its normal rate. No symptoms of hemorrhage remained; and it seemed certain that the symptoms had been due entirely to the inhalation of chloroform. This is not the first time we have had occasion to note this action of chloroform, especially in operations on the urinary passages. In some of the instances, the very gravest fears have been entertained for the safety of the patient; but no instance has hitherto come to our knowledge where death has occurred.

Original Communications.

CLINICAL ILLUSTRATIONS OF THE DIAGNOSIS AND TREATMENT OF ULCER OF THE STOMACH.

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THE statement that ulcer of the stomach "occurs very frequently, that it may be generally detected in the living subject, . . . that it is usually curable," will be to many a startling one, and yet I do but quote it from the work of a living and recent author (Dr. Brinton), who has undoubtedly been at great pains to render himself qualified to offer an opinion on this subject, and whose judgment, I, for one, do not feel disposed to question. Space would not permit us to go through all the points of interest in the history of this complaint; and I shall therefore restrict myself to those which have the most practical bearing, viz., the possibility and method of its diagnosis, and the possibility and method of its cure.

It has been found,—contrary to a very prevalent notion, that ulcers of the stomach never reveal themselves except by perforation and its consequences,—that in certain cases symptoms of a peculiar or special character, and grouping, have been observed during life. These symptoms, though referrible to the stomach, differ very materially from those of ordinary dyspepsia. Careful examination of the bodies of these patients after death has shown that a peculiar condition of the stomach, viz., ulceration, was present. Surely, then, it cannot be rash to diagnose the existence of this condition during life, if we meet with those symptoms which morbid anatomy has shown to accompany it, and which this morbid condition satisfactorily explains. The application of our knowledge of diseases to their detection during life is made in a threefold mode.

We inquire with regard to any specified disease,

1. What evidence is sufficient to induce a suspicion of its existence?
2. What evidence is required to prove its existence?
3. What evidence will justify us in deciding that it is not present?

Our diagnosis may be expressed by the affirmation or abnegation of the propositions into which these questions are convertible.

The degree of certainty with which we may answer these questions, and the difficulty of doing so, varies materially in different cases. Sometimes one, sometimes another or two, or all three, or none of them may, be decidedly answered. With respect to the present disorder, we might put the difficulties thus:—"If ulcer of the stomach exists, are we likely, or ought we to discover it? Are we likely to suspect it where it does not exist?"

The first of these questions may, I think, be answered in the affirmative; the second in the negative, but with certain qualifications which will appear presently.

The symptoms which enable us to discover the existence of this lesion are: pain after food, and the length of time after eating at which this comes on. This varies in different cases from a few minutes to an hour or two, but it is pretty constant in any given case; the pain is severe, and burning or lancinating, felt in the epigastrium and in the corresponding region of the back, sometimes radiating into the shoulders or down the legs; it is relieved often by one position, aggravated by the opposite one, thus giving us a clue not only to the existence of an ulcer, but to its site. It usually is not much alleviated till vomiting occurs, and from this the relief is speedy,

sometimes instantaneous. The ejecta consist of food, more or less digested, with or without a quantity of thin watery or viscid mucus, and at times blood; the appetite is often unimpaired, the tongue natural or pallid, and thirst often absent; tenderness of the epigastrium is seldom wanting, though its extent is generally limited, so that it may escape notice. Tenderness is not unfrequently at that part of the back, in which pain, when dorsal, exists. There is often an absence of heartburn, pyrosis, sour eructations, flatulence. The regularity of the bowels depends chiefly upon the amount and kind of food taken into and retained by the stomach. This remark applies also to the degree of emaciation present, which is also dependant in a great measure upon the extent of the ulceration. Another very marked peculiarity of this disorder, is the worn and suffering countenance presented by patients who have suffered from it for any length of time, quite different from the nervous or fidgety look of simple chronic dyspepsia. If the stomach have become adherent to any other viscus or to the parietes, or if, as may happen, there be much inflammatory infiltration of the gastric tissues, we shall possibly discover by manipulation some tumour or percussion dulness or hardness in the abdomen. When we further reflect that these symptoms continue for months or even years unchanged, both in themselves and in their relation to each other, we have certainly a group of phenomena altogether peculiar, and, as I think, characteristic. Of these symptoms it is customary to describe the hæmatemesis as the most convincing sign of a breach of continuity in the mucous membrane; but when we remember upon how many causes it may depend, it can only be considered valuable as *one of a group*, without the other members, of which it loses much of its significance; and it is upon the *presence of all or the majority of these symptoms* in a given case, rather than upon the prominence or severity of any one of them, that I should be disposed to diagnose the existence of a gastric ulcer. At all events I am sure that we shall benefit our patient by looking upon and treating such a case as one of ulcer of the stomach. As the treatment is a somewhat irksome one, it is beneficial to tell the patient what we think of the nature of his disease, the name of which will probably alarm, and thus tend to ensure obedience to our directions.

The treatment which is more beneficial than all others is the adoption of a purely milk diet; but as a large quantity of milk would produce as much exercise and irritation of the stomach as almost any other ailment, and since the irritability of this organ varies much in individual cases, we cannot specify any fixed quantity. The patient should be directed to take as much at each time as he can do without bringing on the pain. This quantity—at first perhaps not more than a teaspoonful—may be repeated as often as compatible with the ease of the stomach; this is a simple rule by which to decide the amount of nutriment; at first, patients cry out that they shall be starved, and so forth, but they soon find that they gain strength as well as comfort, and indeed it may be well to point out to them that they will gain more strength from the complete digestion of a teacupful of milk, than from eating a mutton chop which the stomach will reject again in perhaps half an hour. It is sometimes difficult to induce patients to try this absolute diet, but once tried, the glorious ease which it produces soon commends it to them.

Patients will have some medicine; otherwise I believe that the plan here recommended is of itself not unfrequently adequate to cure. We cannot well advise a person, whom we limit to a teaspoonful of milk at a time, to take an ounce of mixture thrice a day; I therefore use pills, small in size. The irritability of the stomach in these cases suggests the use of nitrate of silver and opium, of each of which I give about a third of a grain three times a day, with one-eighth of a grain of extract of belladonna, and, if the bowels require it, a little castor oil or henbane and colocynth. This, with a very careful return to ordinary diet, and, during convalescence, some citrate of iron, will, for the most part readily, cure the cases which I have now described, the symptoms of which indicate, as I believe, the existence of ulceration in the stomach. At all events, as I have already said, they are a special group of symptoms, requiring a treatment different from ordinary dyspepsia; such a treatment as, having found successful, I venture to recommend to the attention of my medical brethren.

I will now briefly narrate a few illustrations of this practice, which are more convincing than dogmatic assertions.

CASE 1. M. A. Richards, aged 48, married, a bolt-maker, applied to me at the Dispensary on December 10th, 1857. She had suffered for eight months from gastric pain, which always came on half an hour after food. It was worst at the

epigastrium, which was tender, as was the corresponding part of the back, where also there was severe pain. She could lie better on the right than on the left side; lying on the back relieved the pain. Her countenance was very anxious, and face pale. The tongue was normal, but pale. She was much emaciated, and had been living very badly. She had never vomited till three nights before admission, when she felt a little sick, and threw up three-fourths of a pint of black blood. The bowels were moved immediately afterwards; the stool was pitchy. The symptoms were *always* aggravated by solid food. She had in consequence voluntarily limited herself to tea and toast for the last three days. The treatment was as above described. She improved rapidly for five days, when there was such a severe attack of pain and prostration that I feared perforation had occurred. Under the liberal use of opium, this was removed; and after one or two slight relapses, from indiscretion, she got perfectly well in about two months. I gave her some carbonate of iron during convalescence.

CASE II. George Chaplin, aged 33, married, a brewer, applied to me on May 20th, 1857. He had suffered from gastric symptoms for two months. His countenance was indicative of much anxiety. He had lost flesh, had a slight hacking cough, but no expectoration. The pain came on half an hour after food, and was aggravated by lying down, especially if on the left side. He had not tried the prone posture. The pain became worse and worse for about an hour, when he vomited, and was relieved. Six weeks after, the ejecta were stained with blood; and he had on several occasions vomited black masses, something like tea-leaves (probably mucus and blood, blackened). There were pain and tenderness in the centre of the back, also at the epigastrium, more especially an inch and a half to the right of the median line, just below the ribs. The treatment was as before. He had several relapses, from irregularities in diet, never without; and was cured in about six weeks.

CASE III. Phoebe Prince, aged 26, single, a servant, had had three attacks of gastric embarrassment; the first four years, the second two years ago. The third had lasted now (April 3, 1857) ten weeks. She vomited half a pint of blood seven weeks ago, also a much less quantity during the second attack. She had now pain a quarter of an hour after eating; it lasted for two hours. She seldom vomited. Too long abstinence would at times induce pain. She had not noticed the effect of position. Epigastric and dorsal tenderness was well marked; there was much flatulency; the appetite was good; she had no thirst; the bowels were costive. She took three bottles of a mixture containing tincture of hyoseyamus, dilute sulphuric acid, and compound infusion of calumba, at the commencement of this attack, but without any relief; whilst taking it, the hæmorrhage occurred. She then tried homeopathy, but got worse instead of better. I recommended her to adopt the plan I have already described.

April 8th. She took two teacupfuls of milk at a time, and had pain after doing so, but not so severe or protracted as formerly. She was ordered to diminish the milk to such a quantity as would not produce pain; this quantity, whatever it might be, to be repeated as frequently as may be without causing uneasiness.

April 11th. She had acted upon the foregoing instructions, and had suffered no pain to speak of since.

April 18th. She had had no pain. She was ordered to continue the milk, but to omit the pills, unless pain returned.

April 25th. She had had much work, and consequently felt not so well; and therefore recurred to the pills. She was tired of the diet. The pills were repeated. She was ordered to continue the milk, and take also a little arrowroot, sago, and tea.

May 2nd. She was better; but had some pain, if she neglected the pills.

I saw no more of her till January 11th, 1858. She called on me in the evening, having just vomited a teacupful of blood. I learned that she resumed her former diet about two weeks after I last saw her, and had remained well till three weeks before the present visit. She was soon relieved on the second occasion; and I have not seen her since.

CASE IV. Elizabeth Peters, aged 18, a servant, applied to me at the Dispensary on March 19th, 1857. She was a transparent-skinned girl, light complexion, pretty well developed, but had never menstruated. She had suffered from gastric symptoms for the last six months, never before; but she had always been delicate. The pain came on an hour after eating; it was always aggravated by lying on the right side, a little eased by pressure, but much relieved by vomiting only. About three weeks ago, she threw up a little blood, and, three days after-

wards, half a chamberpotful; since then she had retained nothing on her stomach. She had much acid pyrosis. The bowels were regular. She had lost flesh; the face was anxious. There was no epigastric or dorsal tenderness. The treatment was as already described.

March 26th. She had much less pain; she had only vomited twice; she had not had pills all the time.

April 2nd. She had vomited twice since last note, from taking mackerel; the stomach was otherwise well. She has slight bronchitis. The pills were repeated occasionally; and half an ounce of expectorant mixture was ordered to be taken three times a day.

April 9th. She had had no sick bout since. The cough was better. The medicine was repeated.

April 16th. She was better.

April 30th. She improved slowly; was feeble. The cough was well. She had scarcely any pain at the stomach. The pills were repeated twice a day; and she was ordered to take five grains of citrate of iron, in half an ounce of water, three times a day.

May 7th. The medicine gave her pain, and was omitted.

May 21st. She was much better.

June 4th. She was gaining flesh, and had a good colour.

June 11th. She took meat and was well in all respects.

June 18th. She was discharged.

June 17th, 1858. She remained well till two months ago, when the symptoms recurred, but not severely. She was cured in a few weeks.

CASE V. Ellen Worral, aged 23, single, came under my care on February 12th, 1857. She was pallid, but not much emaciated. She had had a child three years and a half ago, which she suckled nine months. For the last two years she had menstruated every three weeks. She had been well till nine months ago; since then she had suffered from epigastric pain immediately after eating, much aggravated by the supine position, and worse in lying on the right than on the left side, and easiest when she was quite upright, but never really relieved except by vomiting, which occurred in thirty minutes after taking food. The ejecta were occasionally tinged with blood; they were always very sour. She had slight epigastric, but no dorsal tenderness. The bowels were regular; the urine copious and natural. The treatment was the same. She was discharged cured on March 26th.

CASE VI. Ellen Gordon, aged 18, single, a servant, came to the Dispensary on October 30th, 1856. She was a feeble-looking undeveloped girl; she had been ill two years, and thought her illness came on from being exposed in the snow. The symptoms were gastric, and had maintained pretty much the same character from the commencement; with, however, distinct remissions, lasting about a week, during which she always regained strength. The symptoms had been, pain after eating, in from thirty-five to forty minutes, getting worse till vomiting occurred, which soon relieved her; pain, aggravated by dorsal or right decubitus, more especially the former, relieved by left decubitus; ejection, besides the food, of much watery mucus, generally pale and tasteless, but at times bilious, never very sour; pain and tenderness at the epigastrium, the former, when severe, radiating to the back, where, however, there was no tenderness. She vomited about an ounce of blood a month ago. She had cough at times. Menstruation was regular, as were also the bowels. Her appetite was variable, but often good. She was ordered to take nitrate of silver pills three times a day, and to have milk diet.

Nov. 3rd. She had had no pain after eating since, but a little one day from wind. She had frontal headache. The medicine was continued.

Nov. 10th. She was much better, and was ordered not to take the pills unless the pain returned.

Nov. 20th. She took the pills once a day, and was getting fat and strong. She kept to milk.

Dec. 1st. She considered herself well, and was going to take a situation, and leave off medicine.

These few cases are sufficient to illustrate the principles of diagnosis, and the method of cure to be followed. It would be easy to multiply them, were there any advantage in doing so. No age, no sex, no condition of life, is a security against the occurrence of this eminently distressing and often fatal affection. It is easily recognised, and readily curable, but *not* by the remedies which are successful in dyspepsia; yet for dyspepsia it is, I believe, constantly mistaken, to the disadvantage of the sufferer and the discredit of the practitioner.