THE GULSTONIAN LECTURES, ON NEUROSES OF THE VISCERA.

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LECTURE II.

GENTLEMEN,—We all know the story of the resentful lion who had often been painted by the man, and who longed for the time to come when the man in his turn should be painted by the lion. Is it because all medical books have been written by men that gastralgia, one of the sharpest arrows in the armoury of pain, is in many of them dismissed with a few words as a malady of "hysterical women;" of women, that is, whose sufferings are due in part to effeminate habits and constitution, and in part to a kind of fanaticism which prompts them to cherish or to imagine pain, or to make a bitter cry about small matters.

We all ought to know that gastralgia is common enough in man also, though certain writers appear to deny that this or any other visceral neurosis can exist where no uterus is; and in my first lecture I have endeavoured to formulate a distinction between what I may call the upper class of neurotics and their degenerate relations the hysterics; asserting therein that, in hysterics, pain is not a more but a less common inheritance, and that to neurotics it is chiefly given to suffer pains and the renewal of pain, and to bear all with singular fortitude and spirit. As such a zealous neurotic the Sompnoure posed when he described himself thus:

"I am a man of litel sustenance,
My spirit hath his fosteing in the Bible,
My body is ay so redy and so penible
To waken, that my stomak is destroyed."

For of all the neuroses of the stomach gastralgia is the chief; but around it gather, in more or less close association, flatulence, vomiting, hyperæsthesia, and miseries such as distension, sinkings, cravings or loathings of food, and these may exist in various associations, or may exist singly.

As in angina pectoris and the pseudo-angina, so in gastralgia, the spinal nerves may be included in the paroxysms, or may take even a chief part in them, the visceral and overlying spinal nerves being grouped in function and in suffering together. In order to study this class of cases more carefully, I have gone over the case-books of my chamber-consultations for ten years past, namely, from the year 1874 to the year 1883, inclusive. From them I have extracted 139 cases of gastric and abdominal neuralgia. These cases remain after eliminating all that are doubtful or comparatively trivial in degree; all cases attended with important uterine disorder, or complicated with substantial defect in any organ whatsoever, or with disease; all hysterical cases, and all cases of fretful or whimsical persons prone to expand or to exaggerate their symptoms.

The selected cases, then, are the cases of persons of whom I have some tolerable notes, who were straightforward and truthful, and who are, or were, the subjects of neurotic or neuralgic affections lying under the diaphragm and above the pelvis. Now, the great majority of these cases are gastralgics, the region of the stomach being by very far the commonest seat of abdominal neuralgia. Of the gastralgics the majority are women, in the ratio of two to one. In men and women gastralgia is by no means confined to middle life, as Leared supposed, but is found at all ages, from 14 to 60, being most common between 20 and 45. Like migraine it tends to die out in middle life; and, like migraine again, it is attended less and less with vomiting as age increases. Gastralgia comes on earlier in woman than in man, apparently by some ten years. A gastralgic man is rare before the twenties; girls often begin in their teens.

The earlier maturity of the girl sufficiently explains this difference, which is also remarkable, though I think in less degree, in migraine. Migraine may, however, begin at very early ages in either sex. Of associated affections migraine is by far the commonest; and, if we associate migraine and neuralgia of the head and face together, the number of cases in which these are found with gastralgia is very great, seeming to be fully 80 per cent. Fortunately, these affections do not

often coincide in time, but rather alternate variably one with the other. A large number of gastralgics, then, include migraine or neuralgia of the head and face in their life-histories. Another disorder commonly associated with gastralgia is asthma, an observation which scarcely needs either explanation or much asseveration. Neurotic vomiting may accompany, or rather alternate with, asthma, as the gastralgia may; and so again may voluminous flatulence, borborygmi, and other such neuroses. Like asthma, gastralgia is not unfrequently nocturnal in its recurrence, and is likewise often aroused by improper food, or by the contact of any food whatever. Hence the persistent confusion of gastralgia with dyspepsia. Asthma and gastric neuroses, moreover, if not concurrent in the individual, are often concurrent in families, one member suffering from the latter, and his brother, sister, or other relative from the former. With both these vagus neuroses run the cardiac neuroses, including true angina. I am now attending a gentleman with Mr. Jessop, who suffered terribly from paroxysmal gastralgia in past years, and in whom we have now to deal with the true angina. In gastralgics occur violent attacks of palpitation, or, more characteristically, attacks of slow or intermittent pulse, as in the following case.

Mrs. —, aged 24 (No. 371, 1875), suffers from marked gastralgia. She has one child, which she is nursing. She consults me now for pain in the region of the heart of a dull prolonged kind, ending in a sense of exhaustion. The pain may strike to the back and under the left shoulder-blade. At such times, the heart becomes very slow (48 to 50), intermittent and irregular. Curiously enough, such attacks are brought on at once by putting the child to the breast, even before much milk is withdrawn. This sequence is analogous to the sequence of gastralgia after the ingestion of food, the neuralgia being awakened by a peripheral irritant. She soon recovered on appropriate treatment; but, in 1881, after some menorrhagia, the same thing recurred. She again recovered on like treatment. She had had one child between these dates without any disorder of health.

In No. 371 appeared moderately a radiation of pain upon the spinal nerves; this, in other cases, may extend or intensify itself to a degree of pseudo-angina which may even be indistinguishable from real angina.

No. 283, 1878; male, aged 37; of nervous temperament and a zealous worker; is liable more frequently to violent gastralgia, especially after worry and excitement. Less frequently, he has "heart-spasms." In these, he has a sense of swelling at the heart, and pain and numbness down the left arm. At the same time, the pulse becomes "much enfeebled," and is said to be slowed down as low as 20 in the minute, or may even become imperceptible (this from his own doctor). These attacks have come occasionally for many years. Physical exertion does not call them forth. All organic factors seemed normal.

Cases like these may be culled from every year's entries. In one lady, aged 33 (No. 261, 1881), wholly free from menorrhagia or leucorrhæa, an intense aching, with a sense of extreme exhaustion and sinking, would come on at the heart; it recurred then daily, and it was always periodic, appearing about 4 or 5 p.m. She was compelled at such times to lie down and "press the heart," turning over on the left side towards the prone position. These attacks were encouraged especially by any abbreviation of sleep or by fatigue. She herself is subject to gastralgia without dyspepsia, and her mother was mildly epileptic.

Dr. Ramsay, of York, has often consulted me concerning Mrs. —, aged 43, who more than once, with miscarriage, had lost blood heavily. She is very subject also to menorrhagia, which is scarcely kept in check by close attention to local and general remedies. She is, however, wholly free from any persistent affection of the womb or of other organs. She suffers occasionally from gastralgia, but her great distress consists in attacks of stabbing pain, as if the apex of the heart were pierced by an arrow; the pain thence extends with intense cardiac oppression down the left arm to the fingers, causing a numbness there. The pulse falls from an average of 70 to 60, but is not otherwise much embarrassed. She has the faintness and dread, and, in a word, her symptoms are not in themselves to be distinguished from angina pectoris.

The same difficulty of immediate diagnosis is found in the very similar case of Mrs. —, a patient of Mr. Lee, of Dewsbury. In her, also, is a persistent disposition to menorrhagia, and also to uterovaginal catarrh. In these and like cases diagnosis depends less upon the character of the attacks themselves, and more upon the other records. The attacks are commonly due to such losses as menorrhagia or severe leucorrhæa, or to prolonged mental distress; they are not directly produced by bodily exertion, but are often caused indirectly by the resulting fatigue. In some of my cases, again, the

pains are more extensive than is usual in angina. In some, the pain runs down both arms alike, or runs down both arm and leg of the left side, or again springs upwards from the cervical plexus to the same side of the face and head. Valleix' points may be detected in the course of the spinal nerves, but in many cases of pseudo-angina they are not definitely to be distinguished. In women we may rely on the lesser frequency of true angina in them, though the pseudo-angina is often met with in men. About 20 per cent. of my cases of pseudo-angina were in men. In one gentleman, of neurotic habit and ancestry, and whose family affairs were laden with sorrow, such attacks occurred, involving seriously the action of the heart itself, and producing the dread, the ashen countenance, and other marked signs of true angina. As his luck in many ways turned for the better, his attacks diminished, and I believe he has now been free from them for nearly ten years. A favourable opinion in his case was founded upon his age (30 to 36), his diathesis, his unhappy circumstances and his organic soundness. The tendency in all these cases to retardation of the pulse brings them, apparently, into the group of *vagus* neuroses, with asthma and gastralgia; nor will intercostal and cervico-brachial neuralgias cover all their phenomena, such as the dread, the pulse-changes, and the peculiar pains which such patients refer instinctively to the heart (as in Case 261, 1881, *supra cit.*).

It is perhaps impossible duly to attribute to each nerve or system of nerves its own share in these phenomena; even the essay by Professor Eulenbarg seems to me to leave the matter pretty much as any intelligent observer may well have guessed it for himself. Still I think it seems clear that the phenomena of pain and spasm are probably due to the pneumogastric nerve and the intercostal and spinal nerves associated with it; while such other sufferings as faintness, sinkings, cravings, distensions, palpitations, abdominal pulsations, flatulence, retching and vomiting, pyrosis, diarrhoea, lithatic or watery urine, insomnia and so forth, may be attributed to the sympathetic alliances. Pulsations of the abdominal aorta in neurotics, whether men or women, may be so definite, may simulate aneurysm so closely, and do so often appear after some history of effort or strain, that diagnosis upon direct observation may be as difficult as in the case of pseudo-angina, and may, as therein, derive most of its force from the history of the patient and of the family disposition. Avoiding digression, however, and returning to the association of pain in the spinal nerves with pain in the viscera, we observe that cervico-brachial and intercostal pains are found with gastralgia as well as with the pseudo-angina. Out of many cases of the kind I may refer to Miss — (No. 504, 1883), who suffers from gastralgia of the ordinary type, but severely. The attacks are nocturnal. The pain runs down the left arm, until the arm feels quite benumbed and useless. She has faint feelings, but no anginal distress, her catamenia are regular and normal, and she has no leucorrhœa. Her family history is very neuralgic. She bore arsenic badly, but was quite cured by a careful use of it.

Mrs. —, aged 30 (No. 403, 1881), had visceral neuralgia ten years ago, and now for two years past. She has ordinary epigastric gastralgia, unconnected with digestion; and her attacks are usually nocturnal. The pain runs into the left submammary and axillary regions, and into the left arm. At other times, she had suffered from recurrent enteralgia, similar in character to the former, but then running down into the groin. Her uterus and ovaries are normal, and her catamenia regular. She has no leucorrhœa. At the beginning of her attacks, she passes urine frequently—say six times in an hour; then, as the attack subsides, the bladder likewise goes to rest. She came to me on account of frontal and parietal cephalalgia of fourteen days' duration, during which time she had had no visceral pain.

Mrs. —, aged 30 (No. 38, 1877), has had migraine and cephalalgia for years. Her sister is a pronounced gastralgic. For two years she has been subject to attacks, "pinning the shoulders tight," and girdling her with pain round the waist. The pain almost stops the breathing, and so continues for two hours. She then vomits, and the pain departs. She never had jaundice. She looks worn out with pain, but all the organs and functions seem normal.

Mr. —, a cashier, aged 28 (No. 86, 1876), had pains as in the preceding case; they were periodical in recurrence. But in his case the attacks culminated not in vomiting, but in diarrhoea. He recovered completely on tonics, with rest and change of air. He had a neurotic history, personal and inherited.

Miss —, aged 30 (No. 51, 1876), presented symptoms almost identical with those of No. 38, 1877, including the critical vomiting. She was also subject to morning vomiting, attended by frequent micturition. She used to have headache with the vomiting, but not for some time past; though she has severe temporal neuralgia occasionally. Another very curious symptom which occasionally occurs with gastralgia is yawning. I have seen this more than once, and may quote P.

T. P., a grocer, aged 33 (No. 571, 1882), who suffered from gastralgia in the usual way, but with an incessant and irresistible tendency to yawn.

Vomiting is a symptom which, in some cases of gastralgia, takes a very prominent place, but in others is never seen. I have already drawn a parallel between the vomiting of cephalalgia and the vomiting of gastralgia. In either case, the vomiting may stand alone—may stand without headache, or, again, without stomach-ache. In such cases, it may only be known from the case-history whether the vomiting belong to the one order of things or to the other; but the vomiting allied to migraine is more commonly in the morning; is more periodic, and recurs at longer intervals; the vomiting allied to gastralgia is more dependent upon the ingestion of food, is irregular in recurrence, and may, indeed, be daily or almost incessant. As an example of the former, of migraine without headache, that is, let us take the following case.

Miss —, aged 27 (No. 14, 1880), comes of a neurotic family, and she herself had had migraine for nine years. Then the headaches gradually wore off, the vomiting attacks only remaining. These were not very violent, but returned at short intervals. They would last for about two days, during which time she had to keep as quiet as if she had a sick-headache. Mental work or excitement most readily recalled the attacks. Her uterine functions and those of the digestion and bowels were all normal. This patient was a lady of attractions both personal and mental, and her case presented many interesting features. Her vivid perceptions, alertness, incessant and beneficent activity, and utter unselfishness, marked her as a type of the more highly endowed neurotic, and I took much interest in her case. A good deal of amendment was obtained by pointing out to her the true economy of strength and work, and by insisting upon complete rest at times of malaise.

Mrs. — (No. 22, 1880), presented similar symptoms. She used to have full migraine; but from it the headache gradually disappeared; and left only intense and prostrating vomiting, which would recur much as the full migraine used to do, and would last, like it, for five or six hours and then vanish away. In her no functional derangement was present, and she derived great benefit from a mixture of bromides and hypophosphites. The same combination was also very valuable in the preceding case (No. 14).

In such cases, the vomiting, though a visceral neurosis, would seem to be of cerebral origin.

Let us now turn to cases in which vomiting seems to be a limb or remnant of gastralgia. The first is such a complex case as we might well expect to find. No. 44, 1875, male, aged 50, for "all his life" has been liable to sick-headaches. But these would often alternate with gastralgic attacks, which were also attended with vomitings. He is of very nervous temperament, has many cares, and no holidays. Facial neuralgia is a common ailment in him; but, for two years past, his trouble has mainly been vomiting in a morning, a little phlegm only being ejected. Day after day, he finds himself unable to retain food until dinner-time. Now, this seems to have been gastralgic vomiting; and he was cured by a course of bromide of ammonium, with hydrocyanic acid, followed by a course of Easton's syrup, with much general good advice. Two years later, he had had no return of the vomiting, nor of the gastralgia. I should add that he was a total abstainer of seventeen years' standing, and is so still. Now, it is somewhat remarkable that, although vomiting is common in gastralgia, and is common, also, in migraine, and although migraine and gastralgia may commonly arise in the same patient, yet migraine and gastralgia seldom or never occur together. I suspect, therefore, that the vomiting of migraine is not identical in mode with that of gastralgia.

Although, as I have said before, vomiting is sometimes a climax-symptom in gastralgia as in migraine, yet in the former case it is perhaps reflex; in the latter it is perhaps allied to the vomiting of encephalic tumour or of concussion. Take again, for instance, No. 25, 1878, male, aged 23. At times of a morning he awakes in low spirits, and feels apprehensive and miserable. His appetite has vanished, nausea comes on, he vomits, and, after free vomiting of nothing, is all right. Now, this young man was quite cured by guaiacum. I have no history of frank migraine in him, but, like the former cases, I believe it to be migraine *sine cephalalgia*.

But Mrs. —, aged 35 (No. 128, 1878), carries us, on the other hand, towards the stomach. She has leucorrhœa, a soft uterus, and flabby muscles everywhere, her heart-sounds being short and weak. She has no uterine catarrh. Her catamenia are disposed to anticipate, without being any the less in quantity. She is subject at times to intense neuralgia at the supra-orbital notches and in the orbits, "poking her eyes out." Now every morning before rising she has nausea, which proceeds to vomiting. This is especially worse when she is much below par. There is also a great expulsion of indigestive wind, and clear water runs

from her mouth. At the same time, there is pain between the shoulders. Her appetite is never good. She is very temperate in the use of alcohol. The family history is phthisical.

Here we clearly have to do with the stomach, and I regard pyrosis as being for the most part a pure neurosis, probably vaso-motor; for the following case of Mrs. —, aged 41 (No. 503, 1881), takes us a step farther. Seventeen years ago, she fell ill, as at present, but, on the whole, she had enjoyed fair health in the interval. Her attacks are as follows. A sensation of languor and exhaustion is followed by intense pain at the stomach, and vomiting soon sets in. She heaves up clear water, and clear water only. If food come, it is by chance, for the attacks have no connection with diet, nor with meal-times. The attacks may recur even as often as three or four times in twenty-four hours, and with them she has also a pain in the back, "screwing her to death." But not unfrequently she has the vomiting and ejection of water only, unattended then with either pain. She never has any nausea. Her uterine and other functions are normal, and the attacks do not favour the catamenial periods. All commemorative facts, personal and relating to family, have a neurotic quality. This lady recovered her health at the time under the use of arsenic and like remedies, and remained well until a little while ago, when she called upon me, complaining of some return of the vomiting, but without any gastralgia. The stomach-ache, she said, "used to be terrible."

Here, then, we have in close association, and evidently of one nature, gastralgia, vomiting, and pyrosis or the ejection of water. In the similar case which preceded it, we had the ejection of volumes of wind also. This, I say, would lead us to believe that pyrosis, for the most part, is a gastric neurosis; and if we are then led to inquire into the personal and family histories of the subjects of pyrosis, we shall find that, as a general rule, these persons present evidence of belonging to the neurotic class.¹ Indeed, the regurgitation of food itself is by no means always due to an error of digestion; it occurs in many neurotic persons as a purely reflex neurosis during normal digestion.

Henry B., aged 25 (No. 631, 1881), tells me that for some time he has been unable to prevent the regurgitation of food after all his meals, which is very annoying and unpleasant to him. He is not conscious of any dyspepsia whatever, nor can I find any evidence of it. His tongue is clean, his bowels are regular, and his urine of normal quality. He called upon me because of a severe attack of neuralgia in the infra-orbital and dental branches of the right side of the face. No local source of irritation could be found. The remarkable thing is that, on that day and thenceforth, the regurgitation wholly ceased, and under the use of quinine the facial pain ceased also. He had no return of either disorder during my observation of him.

The grocer, P. T. P. (No. 571, 1882), who yawned so much, had also this vexatious regurgitation of mouthfuls of food after his meals. The symptom is doubtless due to an irritability of the muscular walls of the stomach setting up an excessive, and it may be an inverse, contraction of the viscus under the stimulus of digestion, and is a phenomenon of the same order as painful hyperæsthesia of the inner surface of the organ, of which I shall have to speak at length. Before passing to that symptom, however, I must leave regurgitation to consider another form of vomiting—vomiting, that is, not on the empty stomach, but on the full stomach.

This terrible malady is described commonly enough, yet it seems to me that it is but ill discriminated, being mixed up with hysterical vomiting on the one hand, or handed over to the gynecologists on the other. Uterine vomiting, on the one side of it, is to be known by due investigation of the case, and is curable by uterine medicine or surgery. Hysterical vomiting, on the other side of it, is not so easy to separate from the malady I have in hand, unless there be, as for the most part there is, the broad difference that hysterical emesis is consistent with fatness, gastralgic emesis never is, but leads straitly to emaciation. In many cases, the vomiting is preceded by pain, more or less severe, and in these ulcer is often suspected, but in others there is no pain whatever. In both cases—in the case of those with pain and those without—the cause is cognate, if not identical. Let me instance a case from Dr. Salter's work on *Asthma* (ed. 1868, p. 256)—one adduced by him as an instance of "perverted innervation of the pneumogastric nerve." Condensed to the utmost, the story is this.

A little girl, aged 8, rejected food of any kind the moment it was swallowed. There was no pain, no tenderness, no feeling of sickness at any other time. After vomiting had emptied the stomach, she would be quite well. The same thing occurred with any little matter, such as blackberries, that she might eat between meals. She fell into weakness and emaciation; all remedies being useless. Some years

afterwards, Dr. Salter made inquiries about her, and found that the vomiting had been supplanted by spasmodic asthma. The two maladies had, indeed, alternated with each other at times, the vomiting coming on when the asthma was better.

It is enough to make one's blood boil to hear of a poor girl, wasted to a shadow by such a distress, treated, almost with gibes, as hysterical, when she is the subject of a malady as real as the doctor's own tooth-ache, which, in its turn, might vanish, by the way, the moment he should find himself on the dentist's door-step. I have a case in my mind which was recorded as hysteria by the late Mr. Skey, in the *Medical Times and Gazette*, 1866, vol. ii.² In this case, intense suffering followed the ingestion of food. The poor girl had foolishly yielded to the dread of food, and was in a pitiable state of starvation and distress; and yet, because Mr. Skey succeeded, as an entire stranger might well do, in diverting the sufferer by bright conversation on pleasant subjects, he neatly labels her as hysterical. I shall return to these cases presently. Hysteria may simulate gastralgic vomiting, as it may simulate asthma; but we should do ill, for that reason, to treat all asthmatic girls as hysterical, because their dyspnea is neurotic. Happily, these cases of obstinate gastralgic vomiting, for so I will call them, are not very common, if we carefully separate them from hysterical imitations of them, from gastric catarrh, from alcoholism, from uterine vomitings, and so forth. Still, there are too many of them, small as the class may be; and we may properly call the malady gastralgic vomiting, seeing that the mode of them is the same as of the cases wherein pain is also a factor. In some gastralgics, for instance, the two symptoms are not synchronous—the vomiting and the gastralgia replacing each other, as the vomiting and the asthma replaced each other in Dr. Salter's case above cited; or the vomiting may occur at one hour or under one set of circumstances, and the pain at another time and under other circumstances. For instance, in one of my patients, painless vomiting followed the meals, and soon gastralgia of the ordinary type came on in nocturnal seizures, after the manner of its cousin asthma. I find another case, under No. 112, 1881. Miss —, aged 20. At sixteen years of age, she was subject to facial neuralgia, then to pain in the left chest and down the left arm. This left her in eight weeks, and she remained well for some months. Then gastralgia appeared. At first, this arose immediately on eating, or within ten or fifteen minutes thereafter. Then this pain vanished, and she became subject to gastralgia on the empty stomach only. This, in its turn, disappeared, and vomiting set in. The vomiting had gained upon her, and now she vomits all her food. It comes up in a mass, as eaten. She never brought up blood nor mucus. She is emaciated, but all functions and organs seem normal. There is no evidence of hysteria. She made a good recovery on arsenic.

We are thus led to the cases which simulate gastric ulcer; and in which, as I have said, diagnosis, often difficult, is sometimes impossible. No doubt, I have at times mistaken a case of ulcer for gastralgia, and at other times have assumed the existence of ulcer when gastralgia and gastralgic vomiting alone were present.

Such cases, if not familiarly known to the profession, are, at any rate, so far known to the closer observers as to make it unnecessary for me to give the long case-histories which such patients afford. Taken shortly, we find this form of gastralgia most frequently in young women; and it is marked by the sequence of ingestion of food, severe pain in the stomach, vomiting and relief. The pain may occur only on taking food, and vomiting may give speedy relief. It is not an uncommon thing, we know, for young women to produce blood in irregular ways by the mouth, sometimes repeatedly or in quantity, even when all parts are free from disease. If such an appearance should be found, the diagnosis of ulcer becomes almost inevitable. Indeed, blood or no blood, it is often hard to come to an opinion which shall be confident enough to justify us in withholding foods on the one hand, or, on the other hand, in pressing stomach-nutrition gently but firmly forward. But according to the correctness of our judgment must our treatment be helpful, or positively mischievous. Probabilities do not aid us much, for I think the ulcerous and the pseudo-ulcerous cases are about equally common. The catamenia may be absent or present in either case; nor do I agree with a writer in Quain's *Dictionary* that gastric neuroses in women especially frequent the catamenial periods. In so far as these act as general depressants of vitality, they may open the way to an attack, as may any other exhaustion; but I do not find among the genuine gastralgics a consensus of cases showing any more direct or any very frequent association of the kind. Emaciation is, perhaps, rather more usual in the neurotic than in the ulcerous disease, but this cannot go for much; nor can chlorotic anæmia, which may be seen in either form. Pain in the back is as common in gastralgia as in ulcer. In these doubtful cases, we must try to reach safe ground

¹ One of my audience told me, after my lecture, that in himself violent supra-orbital neuralgia is wont to resolve itself with a copious watery defluxion from the nostril of the same side.

² For this reference, and much help of the kind, I am indebted to the invaluable labours of Dr. Neale, the compiler of the *Medical Digest*.

by a careful review of the patient's life-history, diathesis, and associated symptoms; and we can often attain this position by the discovery of neurotic antecedents, and of some previous irregularities in the now associated symptoms. We shall find, perhaps, that vomiting and pain have been dissociated in the past; that the pain has been nocturnal, or otherwise periodic; that there have been voluminous flatulence, cravings, sinkings, and so forth. With such commemorative symptoms, both as regards stomach and other parts, we may sometimes recognise gastralgia clearly enough, even in spite of the occasional appearance of some ejected blood. Hyperæsthesia of the stomach is not of course always, nor even generally, associated with vomiting. Many persons have slighter degrees of such hyperæsthesia, and suffer some discomfort during digestion, either because digestion is slow and defective, or because the stomach resents even a normal digestive process. When such discomfort becomes an ache, the patient calls himself a dyspeptic; when the ache rises into an agony, we have a very grave malady to deal with, even if there be no vomiting nor tendency to vomit. This state of stomach much resembles that of the uterus in the irritable uterus of Gooch, and of the spine in the irritable spine of Teale and the Griffins. It cannot be doubted, I think, that these three maladies, coincident as they often may be with hysteria, are nevertheless essentially independent of it. Irritable spine is found frequently, no doubt, in the plump, listless and egoistical victim of hysteria; but it occurs likewise in the higher class of neurotics. I am attending such a case of spinal irritation at present, with Mr. Richardson, in Leeds. The young lady is not only cheerful, alert, unselfish, and worn in flesh, but she is full of will and energy in her efforts to carry out any troublesome plan of treatment we may suggest. I take her complaints as literally as I do the complaint of any other sensible and temperate person, who says that he is suffering from some unseen distress.³

Irritable uterus, again, in spite of the mechanical school, is a genuine neuralgia in many persons, as it may be an affected malady in others. Irritable stomach is a grim reality in no less a number, though hyperæsthesia and anesthesia, as functional disorders, do, no doubt, belong, also, to the hysterical; and it may indeed be hard to say, in a given case, where active neurosis ends, and where a brooding persuasion of pain begins. We have types intermediate between the sleek religious woman, who knits antimacassars, and lives upon her friends; and the hollow-eyed, fiercely active wan woman, who, labouring ever for others, tries to hide the wolf within her, even from herself. Before Lasèque and Sir William Gull published their cases of anorexia nervosa, I had myself collected six cases, with a view to a publication which thereon became unnecessary. For these cases, I would deprecate the stereotyped use of the name anorexia nervosa. In some of these cases, there is great pain on the ingestion of food; in others, there is no pain, but simply a distaste for food. This distaste has arisen in most of them, however, from some discomfort, which at one time accompanied digestion, a discomfort which may have taken its rise either in dyspeptic or neurotic causes. Sometimes, the distaste has taken its origin in a mere shirking of food—in the fear of growing stout, or in a nobler avoidance of self-indulgence. However established, the distaste, as we know, often becomes invincible, even when eating is unattended with gastric hyperæsthesia. If I were to judge by my own original cases, I should fail to see how the word hysterical could usefully be applied to any of them; in three of them, the word would be absurdly out of place unless we are to apply it to any nervous malady in any woman whatever. This anorexia nervosa is no whimsical malady, no inconsistent nor irregular indisposition, but is a definite complex, consisting, in part, of objective symptoms. With more constancy than is commonly found in disease, we find the malady as follows. It occurs in young women, and nearly always in those who inherit a decided neurotic taint. Five objective symptoms are always present, namely, amenorrhœa, constipation, subnormal temperature, slow pulse, and cold extremities. To these we may add a degree of emaciation proportionate to that of the malady, and a tendency to loss of hair from the scalp. The first five symptoms are observable long before they would appear as simple results of inanition. In some of these cases, as in Mr. Skey's, the pain which follows the use of food is agonising. I have a case in my mind of the last degree of severity, for her agony on the reception of a cup of lithed broth was extreme. I mean that she would shrink away unnoticed and uncomplaining into any remote corner, where she might moan to herself, unconscious of any observation. Now, to this lady, like all the sufferers of this class to which I have referred, the airs and humours of hysteria were wholly alien. Her daily life, even in the days of her weakness, was full of

energy and of well directed good works. Her habits were punctual and methodical, and her affections stanch and wholesome.⁴ She never vomited her food, nor have I found vomiting in many cases of anorexia nervosa. The chief variation in the group of symptoms in these patients is in the presence or absence of pain. Pain, so acute in a few, is in most of them absent or insignificant. In the latter, there exists simply an invincible distaste for food. To yield to such a distaste may seem at first to many high-spirited girls rather a merit than otherwise—it may seem but a distaste for indulgence, a denial of the animal propensities. Thus creeps on, unknown or unconsidered, an aversion from food, and, indeed, an inability to take full meals, which seems, in some cases, almost unconquerable. If the fear of such a state become more prevalent among the public, it is probable that the known results of such mistaken self-denial will serve in future as a timely warning to prevent the full establishment of the distaste.

Hyperæsthesia of the stomach, then, may be found in anorexia nervosa, and to such cases is a grievous addition; in gastralgia of the periodic type, when it may concur with the attacks, or alternate with them; or, again, it may itself constitute a form of gastralgia, a form in which pain occurs only during digestion. These cases are constantly confounded with dyspepsia; but the term can only be applied to them etymologically. For instance, No. 356, 1878, is a solicitor aged 31. He called upon me to complain of "grievous indigestion of long standing." Soon after meals pain would come on at the epigastrium, after a time generalising itself about the chest or waist. It would last from one to two hours, and it never occurred on an empty stomach, not even if the due hour of a meal were overpassed. Now, this surely seemed due to some defect in the peptic process; and, if it were not, how were we to distinguish its cause? Well, his tongue was quite clean, his secretions normal, and he had no offensive flatulence. Nor, again, did he much care what he ate; all things gave him pain alike, except that one thing, beef, which especially tries the neuralgic stomach. But fatigue or annoyance increased his liability to the torment. Sometimes, the pain had given place to a pain in the head, or sometimes it had "pinned him through the body." A year before this stomach-disorder set in, he "was demented with neuralgia in the head," but had suffered thus but little since. Before that, again, he had had a well marked but brief attack of melancholia; his brother had hay-fever badly, and the family-history was neurotic in other respects. Here the gastric pain then seemed to be of the hyperæsthetic form of gastralgia; nor was the diagnosis ultimately difficult unless we are urged to confound it with hysteria. No stomach-medicines could relieve such a patient, and this one was cured with Easton's syrup. In other cases, diagnosis might not be so easy as in his, and in some mixed cases it is very difficult to disentangle the pains which are caused by neurotic hyperæsthesia from the pains which are caused by the presence of products of abnormal digestion. In Miss — (No. 311, 1879), pain during digestion occurred as in the last case, and there were present also the characteristic nocturnal seizures. Miss — (No. 31, 1880), suffered in like manner during digestion, but with great severity. It is strange to see that in her case the group of symptoms called anorexia nervosa never arose. She was pallid, emaciated, highly neurotic, and dreaded food. Still her pulse was rather quick, as well as feeble; the catamenia were regular, though scanty and watery; constipation was not well marked; and she manifested no loathing of food, but would gladly have eaten if she had dared. This lady had the abdominal aortic throb, and also, when the pain came on during digestion, her mouth would fill with clear water. It was a great pleasure to me to see this valuable life restored to health and activity after a long illness. A combination of morphia with arsenic and quinine, administered with food, did best service.

In Miss — (No. 538, 1882), the pain only came on after distinctly improper food, such as tough beef, new bread, sad pastry or cake. Here is a transition towards maldigestion. But the pain was so intense as to point rather to a neuralgia aroused by peripheral causes; and, moreover, pain was not unfrequently aroused by the same cause in the left orbit, or in the brachial plexus. The three pains might come separately, variously combined in pairs, or all together. This case reminds us of Watson's instance, in which a severe pain in the foot was brought on by eating an ice. I may indicate again the curious fact that such gastralgias may be associated with vomiting, or they may not be. In some cases, a tendency to reflex motor spasm is there, in others it is not there. The former cases simulate ulcer, the latter do not; for I presume that vomiting is aroused in all grave cases of ulcer.

Miss —, aged 22 (No. 416, 1883), came under me for intense pain after food, with vomiting and consequent relief. She was sent to me as a case of ulcer ventriculi, and I could not promise her at first that

³ I cannot forbear to refer in this place to the admirable service Dr. Handfield Jones has done in warning us against the delusive phrase of "hysterical pain." Dr. Kent Spender offers the same testimony in his work on *The Relief of Pain*, p. 65.

⁴ Lasèque notices the briskness and energy of these patients, and gives a very fanciful explanation of it.

it was not. But her family history was neuralgic, and she used to be "a martyr to tic." Now, "the food makes her so sore and hurts her so," but she is relieved by vomiting. Whether the point be fit for universal application or not, I cannot say; if it be, it is worthy of a pointed reference—namely, that I found warmth always gave relief in her case. I directed her to drink hot water with her dinner, and after a meal to lie down under a rug, with a hot bottle to the epigastrium. This gave her much comfort, but it probably would not have relieved the pain of ulcer. On the other hand, in her, as in many like her, cold feet would precipitate an attack. This lady was completely and quickly cured by antineuralgic remedies.

Finally, we must remember, nevertheless, that, in organic disease of the stomach, the pain may be independent of food. Mrs. —, aged 52 (No. 240, 1882), consulted me for pain, which was independent of food, and thus closely simulated simple gastralgia. There was no neurotic history, nor was the pain periodic. She vomited catarrhal matters; but some gastralgics vomit gummy phlegm with their attacks. The diagnosis was very difficult, until progressive emaciation and loss of complexion compelled us to infer the presence of carcinoma, an inference which was but too surely justified by the result.

One symptom very characteristic of gastralgia next demands our attention, and that is flatulence. The flatulence of a typical gastralgia is a portentous thing. Like vomiting, like hyperæsthesia, it may concur with the pain, or come independently of it. It returns often in attacks as the pain does, striving vehemently, so that the concurrence of this wind and gastralgia make up the malady known as "the spasms." That such distensions and belchings as these are of other origin than the maldigestion of food is, I think, very imperfectly realised by the profession at large. But in its more striking forms, its independence of such causes is obvious. It recurs often with the same periodicity as gastralgia itself, and, like it, has a fondness for the small hours of the afternoon or of the early morning, especially of the latter. The patient awakes, let us say, at 2 or 3 A.M., with a sense of distension which he knows but too well. His body is sometimes flat, but more often has swollen about the epigastric region, and become tight and hard. For a while, restless and distressful, he rolls upon his face, and rubs his belly until "the wind begins to move." This, as it does so, rumbles upwards rather than downwards, and delivers itself by no common eructation, but the working load rises in a series of eruptions, which roll from the throat in successive waves of flatulosity. It is a prolonged storm rather than an explosion, and its tumult will keep the patient raised in bed, heaving in strife with it for an hour or two before he finds ease.

Miss —, aged 23 (No. 233, 1883) subject to migraine, is liable to violent attacks of flatulency. It awakes her in the night. She has no pain, but great distress; wind works upwards in enormous volumes. Her tongue is clean and tremulous, and secretions normal. The gases ejected are innocent of all odour. The uterine functions are normal. It is not stated that this lady ever had gastralgia at all; certainly she had not at the time of my notes. A like state of things existed in a friend of my own, whose mental and bodily activities are incessant, and who has suffered greatly from gastralgia. He had consulted physicians high and low, home and foreign, and his flatulence had invariably been put down to "indigestion," and he was consequently dieted into still farther emaciation, and still profounder gastric distress.

Miss —, aged 29 (No. 374, 1881), has gastralgia well marked, but complains as bitterly of flatulence. This always comes on upon an empty stomach, and is sure to be generated on the delay of any meal. It "rifts up voluminously."

Mr. H. (No. 629, 1880), has had psoriasis for years. He is subject to attacks of "sinking in the stomach and bowels, as if actually dying." He never had pain, but he has "rounds of intense and tremendous flatulence.....always on the empty stomach."

Again, Mr. —, aged 47 (No. 72, 1879), always "delicate" has gastralgia, at present daily. It recurs exactly at 4.0 P.M., and he hastens to relieve it by food. It is thus postponed till 7.0 P.M., when it is again put off by dinner. He is thus at rest till 4.0 A.M., when he is always awakened, by "loud noisy and continuous belching,with great rollings of wind and most painful distension." He presents no signs of disease anywhere, nor of disordered secretion. He never vomits; he has no discomfort from careful meals, but the reverse. He has had a continuous loss of blood from piles for a long time, and he looks anæmic. This fact he omitted to state until directly questioned, for he believed "that relief to be good for the system," and calculated to clear his "torpid liver." All these people are profoundly convinced that their main enemy is a vicious liver.

I will give but one case more: a solicitor, aged 30 (No. 73, 1878), had been very hard worked. First came dull heavy pain in the left side. Then he became subject to "painful distensions of the body,

not by food," and extreme flatulence; with this comes on great dyspnoea like spasmodic asthma, or, again dizziness so severe that he fears he may fall. He passes profuse and pale urine at such times, and if a woman he would have been written down a hysteric; whereas he is a man of intellect and good sense, and holds successfully a high professional position. The only difficulty in his case was to secure for him a sufficient rest. It is to be noted that in all these cases the wind is quite inoffensive. Whether it be carbonic acid, common air, hydrogen, or what else I am unable to say, as I have never tested it. By its mode of occurrence, the suddenness and volume of its generation, as well as in its innocence of taste or odour, it is clearly marked off from the foul wind generated by the fermentation of food. It is certainly produced in some way by the agency of the nervous system. Such are the painful symptoms which may be observed and discussed under the head of gastralgia; but a few yet remain.

There is a distension of the body, real or false, which sadly distresses some patients. Women having this distension must, perhaps, go upstairs to remove the corset to obtain ease. The swelling is, for the most part, real and measurable; but I am not prepared to say what is the cause or mode of it. That it is a mere accumulation of wind, I hesitate to suppose. It is often unassociated with any consciousness of the presence of flatulence; and, moreover, it is not confined to the region of the stomach. I am assured by many patients, and their observing friends, that it may extend all over the breast, and even to the neck. It may be vascular, but there is no blush with it.

To the horrible, death-like sinkings which belong to gastralgia, though not always actually coincident with the pain, I have already referred incidentally. No. 80, 1874, a male, aged 28, after a few months' worry, began to have neuralgic pain in the left arm and up the neck. After this, he became subject to nocturnal attacks of "want"—not a craving, nor exactly a faintness, but "an awful emptiness, with a dread at the heart." He was substantially quite healthy, and was soon cured on restorative and tonic treatment. I am now seeing a similar case in Leeds, with Mr. Robson, in a neurotic subject. Vertigo is sometimes associated with this symptom. Slighter degrees of this distress often accompany gastralgia or enteralgia, or, with an unaccountable languor, precede them. These subjective sensations are, of course, to be distinguished from the collapse, sometimes alarming in its degree, which is consequent upon the intenser attacks of abdominal neuralgia. The intensity, indeed, of most severe cases of gastro-enteralgia may be seen in the ashen cold face and blue nails. Finally, most gastralgics are subject, not when actually suffering only, but also at all times, to borborygmi. Few people are ignorant of this phenomenon; but it is in neurotics especially, that it reaches its most lively and garrulous form. An old and valued domestic, who has recently retired after twenty-five years of household service, and who presented all the phenomena of gastralgia in an active form, was so embarrassed by these audible internal questionings that she almost withdrew herself from waiting at table. In some persons, borborygmi are rhythmical, and coincide with the inspiration. The noise is then rather of a churning character; and, I believe, is made in the stomach only. On examination, it will be found that, in these persons, the breathing, when full, is wholly abdominal. Even in women, the thorax may be motionless. In addition to tonic measures, gentle dumb-bell exercises are most potent to remove this disorder.

And now, gentlemen, have I succeeded in enforcing that which you already know—namely, that all the symptoms I have discussed to-day form, not only a consistent, but a very uniform series? Few maladies present a more definite series, or one more capable of rational explanation. Is it not one of the last maladies to be classed with those of irregular, capricious, and fanciful evolution? Shall we then say, as the authors of our text-books do to this moment, that gastralgia is, for the most part, a malady of hysterical women? If we still say so, then it is indeed time for the lion to paint the man.

PERIPHERIC NEURO-TABES.—At a meeting of the Société de Biologie, held in February 1882, Dr. Déjerine made a communication on some lesions of the peripheral nerves found in locomotor ataxy. He said that some of the symptoms, such as the occurrence of localised areas of anesthesia and hyperæsthesia, were due to a peripheral neuritis, and not to a degeneration of the posterior nerve-roots, or of the spinal cord. More recently the same author has attempted to prove, at a meeting of the Académie des Sciences, that all the symptoms of tabes can be present without myelitis. In two cases where the diagnosis had been made without hesitation, he found after death that the nerve-roots and spinal cord were quite healthy, but that many peripheral nerves presented evident signs of parenchymatous neuritis.