Clinical Lecture

ON THE

TREATMENT OF GASTRALGIA.

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GENTLEMEN,—I do not propose to-day to attempt a complete exposition of the nature and cure of gastralgia. I desire to draw your attention to some salient features of practical import in the definition, etiology, symptomatology, and diagnosis of the disorder, and especially to point out to you a means of treatment in which I have found confidence, based upon a long and frequent experience of satisfactory results.

Gastralgia is a very painful affection. The pain has marked characteristics as to position, duration, and onset, and as to its sexual, constitutional, and temperamental associations. The disorder has been variously called gastralgia, cardialgia, and gastrodynia. The nomenclature of the Royal College of Physicians authorises the last name, and it gives "stomach-ache" as a popular synonym. The malady is usually held to be a neurosis, affecting the gastric nerves. According to Dr. Leube gastralgia is limited essentially to the sensitive sphere of the gastric nerves.¹ That the disorder is a neurosis is not quite proven—indeed, it is scarcely demonstrable. But the idea is a good "working hypothesis," which I commend to you. Romberg distinguished two forms of gastralgia: one, which he called gastrodynia neuralgica, he held to be a hyperæsthesia of the gastric branches of the pneumogastric nerves; the other, which he called neuralgia coeliaca, he regarded as a hyperæsthesia of the solar plexus. Although Romberg has indicated what he thought to be the signs and conditions upon which a clinical differentiation of these varieties of gastralgia might be established, I agree with Niemeyer that in a given case it cannot be determined whether the patient's pains occur in pneumogastric or in sympathetic distribution. As Hensch has taught, although the distinction may rest upon a correct theoretical basis, it is one which is inapplicable and worthless in practice.² It has been objected that the term gastralgia is unscientific, because it is only the name of a symptom. In practice, however, and especially in private practice, we meet with many cases for which I know of no other name; and I apply the name to a clearly conceived and clearly defined condition. I call a case one of gastralgia in which pain, deep-seated and paroxysmal, in or about the stomach, of a neuralgic or quasi-neuralgic character, is the leading symptom. But this statement is inseparable from the following important qualification. Pain of the character and position described can only be regarded as that of gastralgia when it is unaccompanied by marked evidences of gastric or gastro-hepatic catarrh, and when, also, it is wholly unaccompanied by physical signs of structural disease either in the stomach or in its neighbourhood. The latter part of this definition involves an essential and a negative conclusion. A negative conclusion, of course, in any case is proverbially difficult. Such a conclusion should only be formed in a supposed case of gastralgia after a complete examination of all the circumstances. Further, a diagnosis of gastralgia should only be held in the conduct of a case of pain in the gastric region as a conclusion which is subject to frequent diagnostic revision; that is, such a diagnosis can only be continued when repeated physical exploration fails to reveal any other "coarser" interpretation of the patient's suffering. I desire to impress this last statement upon you as an important clinical caution, which you must especially remember when your patient is a man at or beyond middle life. In such a person the danger of mistaking a graver and more material condition for gastralgia is especially imminent. The diagnosis of gastralgia is one which should never be lightly made, nor negligently maintained. Pain in the gastric region, you should always remember, may long appear to be simply gastralgic—that is, independent of any local organic

basis,—when the appearance of a tumour, or the discovery of an aneurisml pulsation, or a sudden gastric or intestinal hæmorrhage may prove a diagnosis so comparatively favourable to be tenable no longer.

Romberg's short and vivid description of an attack of the severest gastralgia has been accepted as classical. Let me read it to you. He wrote: "A violent contracting pain at the pit of the stomach supervenes suddenly, or after being preceded by a sense of oppression; it generally extends to the back, there is a sense of fainting, the face is fallen in, the hands and feet cold, and the pulse small, cramped, and intermittent. The pain attains such a pitch as to cause the patient to scream out. The region of the stomach is either swelled and distended like a ball, or, as is more frequently the case, it is drawn in, and the abdominal parietes are tense. It is common to find pulsation at the epigastrium. Pressure is not only well borne, but the patient frequently forces the pit of the stomach against some firm object, or compresses it with his hands. Sympathetic sensations occur in many instances in the thorax, under the sternum, or in the pharyngeal branches of the vagus nerve, while they are seldom met with in the superficial parts."³ This is Romberg's account of a typical and violent seizure of that form of gastralgia which he called coeliac neuralgia or paroxysmal hyperæsthesia of the solar plexus. You may accept his clinical portrait as accurate, although it is doubtful whether he was correct in localising the pain solely in nerves of the sympathetic system. Under the heading of gastrodynia neuralgica you will find in Romberg's excellent book a faithful clinical description of the milder cases of gastralgia, or "attacks of painful sensations in the stomach," especially as they are manifested in association with the nervous temperament, and with the reflex expressions of sexual irregularities in women. I have ventured from my reading and clinical experience to form the opinion that Romberg did not describe two distinct diseases under the several names of coeliac neuralgia and neuralgic gastrodynia, but merely one and the same affection, which I have been accustomed to call gastralgia, as he met with it in different degrees of severity. Of course a dual interpretation of painful neuralgic affections in the gastric region has an anatomical basis in the dual nerve supply of the stomach—namely, in the innervation of the organ by nerves of the sympathetic system, and also by the vagus. But, truly, in the words of Leube, "in the present state of uncertainty with regard to the mode of action of the gastric nerves, especially with regard to the conditions of sensation, and in view of the anastomotic connexions between the vagus and the sympathetic in the stomach, such a division of cardialgia appears to be both theoretically and practically untenable."

Gastralgia may occur at any age. It is rare at the extremes of life. It is rarer in children than in old people. It is most commonly met with in early middle life. Like all neuralgias, it follows hereditary constitution, and is especially associated with the nervous temperament. I advise you to study temperaments. In them you will find many clues to morbid tendencies. Temperaments denote distinct types of physical form, of habits, and of capacities. A man of nervous temperament is mostly slightly built, and he is generally in a hurry. He is hyper-sensitive to all influences, and to pain amongst them. All his movements are quick, and he has a strong tendency to "fidget" with his ideas or with his extremities. His speech betrays him: he talks volubly, abruptly, and earnestly, often splitting up his phrases, or recalling and correcting them, and especially modifying qualifying words.⁴

As in all neuralgias, women are more liable to gastralgia than men. As, also, in all neuralgias, the manifestation of gastralgia is favoured by every condition which reduces the vigour of a patient's "general health." Gastralgia is a frequent neuralgic development of hysteria; and, in women who are not hysterical, its incidence is often determined by the prostration of anæmia or by the exhaustion which arises from prolonged uterine discharges. In men gastralgia may be a consequence of sexual excesses or of masturbation. All these circumstances must be remembered and dealt with in the causal diagnosis and effective treatment of the disorder.

The diagnosis of gastralgia is not usually difficult. Pain is the leading symptom. When we are satisfied as to the

¹ Von Ziemssen's Cyclopadia.² Niemeyer: Text-book of Practical Medicine.³ Romberg's Nervous Diseases of Man. Translated for the Sydenham Society by Sir Edward Sieveking, M.D., &c.⁴ I have given a fuller account of the nervous temperament in my Contributions to Practical Medicine.

genuineness of pain in the region of the stomach, its correct interpretation largely depends upon an accurate appreciation of various diagnostic data *per viam exclusionis*. I cannot deal exhaustively with this part of the subject to-day. I desire, however, to give you these three cautions, which I have learned in practice: (1) Gastralgia is not a wasting disease. (2) It is not safe to diagnose cancer of the stomach until you can feel the cancer. (3) Do not diagnose ulcer of the stomach until you have seen blood from the stomach, either in hæmatemesis or mælena. You may take it as a clinical truth, as the late Dr. Wilson Fox clearly insisted, that pain arising in the stomach when the organ is empty, and relieved by the ingestion of food, is almost diagnostic of its nervous origin and nature.⁵ Sometimes the pain of ulcer or cancer of the stomach may for a time appear to be relieved by taking food, but such a condition is highly exceptional. There is sometimes a kind of gastric "sinking," even amounting to craving for food, in gastric catarrh, and with greater rarity probably in gastric ulcer; the local discomfort is not, however, relieved by feeding, but, on the contrary, usually made worse. There is another diagnostic sign of great importance in the recognition of gastralgia. It is this: firm pressure over the region of the stomach relieves the local pain. Some patients find this out for themselves, and press a closed hand or the upper rail of a chair strongly against the epigastrium, and so find relief.

My chief object in drawing your attention to the subject of gastralgia is to explain to you a plan of treatment which I have found very successful. I can tell you of a drug which cures gastralgia. Before you prescribe it, however, you ought to find out if there be any prominent pathological concomitants or causal antecedents of the disorder, and deal with them. Anæmia, sexual excess, overwork, work under wrong conditions, uterine discharges, masturbation, &c., must be appropriately met. But for the cure of the gastralgia something more is usually necessary. Of all the directly therapeutic results in medicine with which I am acquainted, one of the most demonstrable is that which can be produced by the suitable exhibition of arsenious acid in uncomplicated gastralgia. I give one-twenty-fourth of a grain of arsenious acid, made into a pill with two grains of extract of gentian, thrice daily, between meals. The use of this remedy must be continued for a few weeks. In a case of moderate severity no other medicinal treatment is necessary. The gastralgic pains become less frequent and less severe, and recovery is steadily and surely attained. In severer cases I use some form of counter-irritation to the epigastrium, and I usually employ a rubefacient liniment of ammonia. In the severest cases vesication by a fly-blister is of service, and the blistered surface should be kept raw for some days by means of a daily dressing of savin ointment. But you must not rely upon treatment by drugs alone. Every hygienic adjuvant which tends to raise the strength of the patient is of high value in the cure of gastralgia. I especially advise you to make sure the sufferer feeds well and fully. The diet should be generous. A "dyspeptic" regimen makes a case of gastralgia worse. When you are satisfied there is no, or but slight, gastric catarrh in the gastralgia of a fairly vigorous adult, you should direct a dietary after this plan:—Breakfast: bread-and-butter or dry toast, with some fresh white fish, or some cold chicken or game, or a mutton chop, with a breakfastcupful of cocoa or weak tea or coffee. Dinner (1 P.M.): fresh beef or mutton, with bread, potatoes, cooked green vegetables, a fruit tart or a farinaceous pudding, with a glass of light bitter ale. Tea (at 5 P.M.): bread-and-butter or dry toast, with a small cupful of cocoa, tea, or milk-and-water. Supper (not later than 9 P.M.): white fish, or some cold chicken or game, or a little cold meat, with bread, and a glass of ale.

⁵ Reynolds' System of Medicine.

TAUNTON AND SOMERSET HOSPITAL.—At a recent special meeting of the governors of this institution, called with reference to the gift of £5000 by an anonymous donor towards the jubilee extension fund, it was resolved that £800 should be paid for the site of the proposed nursing institute, and as this property belonged to the hospital, the sum will be paid into the general fund. The remainder of the money, after paying for this building, the children's ward, and the out-patient's department, will be invested as an endowment for the support of the nursing institute. It was stated that the fund amounted to £10,489.

ABSTRACT OF THE

Address in Public Medicine

Delivered at the meeting of the British Medical Association at Dublin,

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AFTER welcoming the members of the Association to Dublin, Dr. Haughton said that the natural rights of every human being born into the world might be shortly summed up as follows: liberty, air, water, food, heat, and light. The most important of these were air, water, and food. Without air, we live three minutes; without water, we live three days; without food, we live three weeks. Instincts stronger than reason compel us from our birth to seek these natural rights for ourselves; by force, if necessary; our progress has, however, been slow in recognising the equal claims of others to the enjoyment of these natural rights. In 1851 the window tax was abolished, after having deprived millions of their fair share of sunlight and air for more than one hundred and fifty years. In principle, this was as monstrous a tax as that levied upon urine by the Roman Emperor, Vespasian.¹ The supply of pure water to the poorer classes was as defective as that of sunlight and air. In 1836, the first year of complete registration, the water supply of London was 36 million gallons daily, much of which was drawn from the tidal portion of the River Thames, more or less imperfectly filtered; but owing to the doubtful purity of the water supply, many persons preferred for drinking purposes the water derived from surface pumps, some of which were in the immediate vicinity of churchyards. In 1845 the water supply of London had increased to 45 million gallons daily; in 1858 it was 75 million gallons; in 1886 the supply reached 180 million gallons daily. In the good old times Ireland was not much better off. The City of Waterford depended chiefly for water supply upon its own surface wells. One of these, which appears to have been in great demand, was analysed by Sir Charles Cameron, who declares it to have been, without exception, the worst water he had ever met or read of. On closely smelling this water, a faint urinous odour was perceptible, and the amount of ammonia contained in it exceeded the quantity he had found in some specimens of Dublin sewage.

Discussing the death-rate and density of population, Dr. Haughton observed that the death-rate of a population was the number of deaths for 1000 living persons of all ages in a year. The density of a population was the number of persons residing in a square mile. It is well known that after the density of population exceeds a certain limit the death-rate begins to increase, so that the density of population must be regarded as one of the causes of death-rate, though only a secondary cause. The first person who attempted to reduce the relation between density and death-rate to a mathematical form was the late Dr. Farr, who rendered such important services to the science of vital statistics. He selected seven groups of districts of England and Wales arranged according to density of population, and compared their death-rates; from these data he derived the following formula:—

$$m' = m \left(\frac{D}{D'} \right)^{0.11998}$$

where m , m' are the death-rates of any two places, and D , D' the densities of population at the same two places. This is equivalent to assuming that the relation between density and death-rate may be represented by a parabolic curve, of the form² $Y^n = px$. Dr. Farr assumed that n and p are constant, and from this assumption derived his formula, in which, however, the column of differences is too large, and gives the large probable error $e = +$ or -3.11 in the death-rates. If we assume that the values of n and p vary at different parts of the parabolic curve, we can readily find formulæ for calculating, in which the probable error is

¹ ———— *lucri bonus est odor ex re*

Qualibet ————

² This form of parabolic curve represents also in meteorology the relation between radiation and temperature.