CLINICAL LECTURES

ON

THE DIAGNOSIS OF TUMOURS OF THE BREAST.

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LECTURE II.

Recapitulation of last Lecture. Affections of Breast intimately connected with the Gland itself. Hypertrophy. Inflammation. Cancer. True Cystic Disease.

IN my last lecture on the diagnosis of tumours of the breast, I gave you some rules of practice which I would have you adopt in the investigation of a case; and I pointed out how you were liable to be misled by the neglect of any of those modes of research. I showed you how, by inquiry into the history of a case, an opinion is instinctively formed as to its nature; and how important it is to have that opinion confirmed or corrected by the facts which are furnished by what you see in the case before you, and what you feel by a manual examination of the part involved. I briefly alluded, also, to some of the errors into which a surgeon is liable to fall when he rejects any of those modes of investigation, or relies too strongly on one more than another. I explained to you that the diagnosis of a tumour of the breast is not to be determined by any pathognomonic symptoms, but by the presence or absence of many; the value of any individual symptom depending on its association; and I tried to impress upon you this truth, that a scientific diagnosis is alone to be made in a path of investigation similar to the one I laid before you. I then passed on to consider the value of the principal points which should be looked for by the mode of investigation I recommended, and closed our lecture by applying its conclusions to the diagnosis of the innocent or adenoid tumour of the breast; such a tumour, as a rule, existing as an independent growth, more or less connected with the gland-structure, but never involving the mammary gland itself as a cancerous disease or a chronic inflammatory affection.

On the present occasion, I propose to consider the *affections of the breast which are intimately connected with the gland itself*, which infiltrate either the whole or some portion of the mammary gland; for, having made out that the disease is in the breast itself, we have to ask ourselves, Is it a simple hypertrophy of the mammary gland we have before us, or an inflammatory affection of the organ? Is it a case of cancerous disease, or one of an innocent nature? Is it the true cystic?—for the diseases of the true gland may be thus divided:

1. Hypertrophy of the Breast, organic and functional;
2. Acute and Chronic Inflammation;
3. Cancerous Disease;
4. True Cystic Disease.

The acute inflammatory affection will not receive our attention.

Hypertrophy of the Breast.—By hypertrophy of the breast we mean that steady chronic enlargement of the gland which is occasionally found in young men and women, independent of any increase in its functional activity. It is essentially due to an increase of the gland's growth, without an increase of the gland's functions. It might fairly be described as an *organic hypertrophy*, in contradistinction to the *functional hypertrophy* which exists in pregnancy. It usually occurs in young women, although it is found in men; and within the last few years I have seen a man with one breast the like of which many women would have gladly possessed. It may attack only one gland, but it commonly involves both; and it may grow to an enormous size. The growth is of a chronic nature, and is generally painless; it causes inconvenience only from its size. I will now show you a young woman, aged 32, who is the subject of this affection. You will observe that the right gland only is involved; it is as large as her own head; it has been growing for four years, and is quite painless. To the eye, the breast looks healthy; and to the hand it feels like any other mammary gland. There is, in fact, only too much of a good thing. We are treating it by pressure, with the hope that its increase will be prevented; and, up to the present time, with some success. Some years since, I saw a girl with both breasts similarly affected; and, when she sat, the tumours rested on her thighs. They were both subsequently removed at different times, and each gland weighed nearly fourteen pounds. That was an extreme case.

I would now give you a hint worthy of recollection. In every case of hypertrophy of the breast, of whatever station in life the patient may be,

always think of pregnancy, and ask yourself whether the enlargement is a genuine organic one, or merely functional, due to natural conditions. The diagnosis of the functional hypertrophy of the gland will be easy, if you carefully attend to the following symptoms; viz., cessation of the catamenia, darkening of the nipple's areola, fulness of the glands, and enlargement of the veins; you will also observe that *both* glands are equally enlarged; and this symmetry should always lead you to suspect that the disease is not of local origin.

A lady, aged 44, called on me a short time ago complaining of enlargement of the breasts. Upon examination, I perceived them to be large, tender, and full. She informed me that the catamenia were not quite normal, but as regular as could be expected at her period of life. Twenty years had passed since her last confinement. I remarked to her, that her breasts conveyed to me the impression that she was pregnant. This excited mixed astonishment and doubt on the part of my patient; but, on referring her to an eminent accoucheur, she was informed that for the five previous months she had been *enccinte*.

With these remarks I will dismiss these cases of hypertrophy from our list; for they cannot well be mistaken from any new growth, much less for malignant disease.

We will now pass on to the more immediate subject of my present lecture—the diagnosis of a disease of the breast which shows itself by a partial or complete infiltration of the gland's structure; for in such a case the question naturally arises, Is it one of cancerous disease in its early stage? or is it one of chronic inflammation only? Let us consider the points by which we are to be guided in our diagnosis, for it is no small matter we are called on to decide. We must be governed by probabilities, it is clear; for, up to the present, no positive signs or combination of symptoms exist to render the diagnosis at all certain. What, then, are these probabilities? Should this condition of the breast exist in the young and healthy unmarried woman, the probabilities point in favour of the disease being one of an inflammatory or simple nature. Should it appear in a woman at that period of life when the functional activity of the mammary gland is on the wane, the probabilities of its being of a cancerous nature are very strong. Should the patient be one in the prime of life, when the probabilities of either condition are fairly balanced, the diagnosis becomes most difficult, if not impossible. The facts I gave you in my last lecture render these opinions intelligible. Should this condition of gland occur in a woman who has been suckling, whether young or middle-aged, the probabilities of its being inflammatory are much strengthened.

Let us now associate this symptom of thickening or infiltration of the breast with other symptoms, and endeavour to read their meaning. We will suppose that a young lady consults us respecting some hardness and thickening of the breast, wholly or in part. On examination, she manifests slight irritability, and is observed to start at the slightest touch, appear awkward, blush, and seem restless and uncomfortable. Upon inquiry, you ascertain that the catamenia are irregular or excessive, or that she suffers from dysmenorrhœa. You may now with some justice approach a conclusion; for you have some hardness of the breast, associated with general excitability and uterine disturbance. You are in a position to say that the probabilities are all in favour of the disease being of a simple character. You have before you a typical case of so-called *irritable mamma*.

Difficulty of diagnosis arises, as I have already indicated, when, in a woman of middle age, the only symptom observable is that of thickening. I have already shown to you, by the aid of statistics, that middle life is very liable to malignant disease; and I would assert with some confidence that, when infiltration of the mammary gland occurs in women of middle age, when the procreative organs are verging towards the natural period of their functional decline, when no pregnancy or suckling coexists, the disease is very likely to be cancerous. But would a surgeon, on such evidence alone, be justified in pronouncing the disease to be cancerous? Certainly not. And, should a patient ask you the character of the affection when there are no definite symptoms, I implore you not to magnify her fears. Should you be pressed to give an opinion of the precise nature of the case, tell your patient's friends your doubts; inform her that it is unnecessary to make herself unhappy in this stage of the disease, for it may prove simple; and that no operation is required. Improve the patient's health; wait, and carefully observe the case till other symptoms arise. Should, however, you find the duration of the tumour to have extended over many months, perhaps years, you may safely inform your patient that the disease is probably of an innocent character; for you well know that infiltrating cancers are not usually stationary, but generally active, growing more rapidly than innocent tumours. Should the tumour have existed for four or five years, and yet have remained as a simple infiltration of the gland, uncomplicated with other symptoms, probabilities of cancer vanish; for the natural history of cancerous affections tells us that such a progress of the disease is

* From Notes by Mr. Samuel Jackson.

far from usual, and, as a consequence, the probabilities of the case tend towards that of innocency. Should the tumour have gradually assumed a globular form, the question of chronic suppuration may be entertained; and, should fluctuation be detected, though indistinctly, the nature of the disease will have become tolerably certain. In these cases, an exploratory puncture with a grooved needle becomes of incalculable value. Without it, errors in diagnosis will be made; for chronic abscesses have not unfrequently been cut into, and breasts have even been removed, under the mistaken notion that cancerous disease existed. In the following cases, such an error in diagnosis might have been made, had too much confidence been placed in certain symptoms, or too little attention been paid to the history of the disease; and, as such, are deserving of study.

CASE I. *Tumour in Breast simulating serious Disease; Chronic Abscess, and Recovery.*—E. F., aged 32, came under my care on April 2nd, 1867, with a tumour in her right breast of nine months' growth, of the size of an orange, and enlarged axillary glands. The tumour had been of slow growth for eight months; but for the last few weeks its increase had been rapid. It had given rise to little pain. The nipple was slightly retracted, and had discharged for the early months a watery fluid, but for the last the discharge had ceased. She was a married woman, the mother of four children, the youngest being two. She had never suckled with the affected breast, as the nipple had been too tender.

The diagnosis of this case was not clear. The tumour was somewhat globular and elastic; and thus the cystic nature of the disease was slightly indicated. The history of the case pointed towards a chronic abscess. Under these circumstances, an exploratory puncture was demanded. Pus escaped. The abscess was fairly opened, eight ounces of pus escaping. By June 6th she was declared well.

CASE II. *Chronic Induration of Axillary Lobe of Right Breast, with Contracted Nipple and Enlarged Axillary Glands.*—Emma G., aged 30, came under my care April 15th, 1867, with a "tumour in the outer half of the right breast of nine years' duration, a retracted nipple, and enlarged axillary glands." The tumour was evidently an infiltrating one, and involved the axillary half of the gland. By the local symptoms alone, the true diagnosis of the case would have been difficult, if not impossible; for the symptoms present were precisely those which are met with in a cancer. The age of the patient (30), and the duration of the disease (nine years), however, militated against this view; and, when we found that she was a married woman, the mother of six children; that she had never suckled from that breast, on account of the contracted nipple; and that the lump in the breast had appeared after her first confinement,—the true nature of the case was revealed. By treatment, all these symptoms subsided; and on June 6th she was well.

(To be concluded.)

OBSTETRIC MEMORANDA.

UNDER this head we shall from time to time, as materials come to hand from correspondents, publish records of cases remarkable in themselves, or illustrating points of interest in obstetric practice, therapeutic or manipulative. We shall probably in this way preserve from oblivion the notes of very many useful and instructive occurrences in private practice, for the great obstetric experience is that—for the most part hitherto unwritten—of the great body of general practitioners throughout Great Britain. We will only ask those who may forward cases for record to relate them with the utmost brevity, and equally to condense any appended remarks.

CASE OF INTRAUTERINE ABSCESS.

By JOHN TAYLOR, Esq., Ticehurst.

H. S., aged 17, a primipara, was delivered of a male child at the full time in the Ticehurst Union Infirmary. The presentation was a face one; the pains being excessively severe, and the progress of three hours *nil*, delivery by forceps was resorted to. The child, when born, was much disfigured; he had a large swelling over the lower part of the neck in front, owing probably to an enlarged thymus; this diminished in size a few days after birth. Below the horizontal ramus of the inferior maxilla on the right side, a cicatrix an inch and a half long was apparent, at the extremities of which was a small opening leading to a short sinus, the intervening part being composed of condensed tissue; a sanious and serous discharge issued from the openings for a few days. Erysipelas appeared and spread over the face on the affected side; the cicatrix sloughed, together with the tissues included between the two sinuses. Several small scattered abscesses, probably of pyæmic origin, formed in different parts of the scalp; and death took place fourteen days after birth.

The mother did well. There was no history of syphilis in her; nor was there any appearance of congenital syphilis in the child.

ON PRISON AND WORKHOUSE DIETARIES.*

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MY attention has been drawn more particularly to prison dietaries by the remarks made by Mr. James Blake, member for Waterford, in the House of Commons, during the last session of Parliament. The question raised by his remarks is, whether the Government is justified in punishing criminals by a restricted diet. As such restriction may, either directly or remotely, be attended with consequences which the punishment is not intended to produce, it has been held, that prison authorities have no right to impose a diet which may, directly or indirectly, tend to the shortening of life. My object in this paper is not so much to show where public dietaries, through ignorance or design, have shortened life, as to show on what principle public dietaries should be constructed in order to insure the perfect health of those who consume them. Without inquiring, then, into the results of the prison dietaries of Ireland, it would appear, from the last report of the Inspector-General of the general state of the prisons of Ireland (1866), that, in a large number of the prisons, the daily value of the food supplied to the prisoners did not exceed in cost twopence-halfpenny a day, whilst, in the most costly cases, they did not exceed the cost of fourpence a day. Before examining these dietaries in detail, I may perhaps be permitted to make a few general remarks on the nature of food. Modern chemical and physiological research has placed within our reach the means of arriving at a tolerably accurate estimate of the nature of the constituents of food which ought to be supplied to human beings for the healthy nourishment of their bodies.

In the first place, food must contain constituents containing nitrogen, which have been called flesh-forming substances. These are contained in all forms of vegetable and animal food, and are distinguished by possessing a certain quantity of nitrogen; hence they are called nitrogenous substances. When separated, they are known by the names of fibrine, albumen, and casein. These substances are found in all forms of vegetable and animal food; and their quantity in each kind of food has been ascertained with sufficient accuracy to be available for practical purposes. A changed form of these substances, known by the name of gelatine, is found in animal food; but considerable doubts are at present entertained as to whether it is appropriated as a flesh-forming substance. Hence, the impropriety of estimating the amount of flesh-forming substance which food contains by the quantity of nitrogen afforded on chemical analysis.

Animal flesh differs from vegetable food in not only containing a larger quantity of these flesh-forming matters in proportion to their weight, but in containing certain chemical substances, kreatine, kreatinine, inosine, and others, which exert upon the digestive organs a power of rendering them more able to digest the various other constituents of the food. The way in which these principles contained in flesh exert an influence is seen in the action of the compound known as *Extractum Carnis*, which is the expressed juice of meat, and which renders easily digestible other kinds of food. It is on this account that it is desirable to add to vegetable food a certain quantity of animal flesh, not on account of its more nutritive or digestible qualities on its own account, but because it helps the stomach to dispose of its vegetable constituents.

The next group of alimentary substances which are met with in all food are those called heat-giving substances. I need not here defend this nomenclature against objectors. The fact is well known, that both animal and vegetable food contain three substances, known as starch, sugar, and fat. Starch is largely present in wheat, barley, oats, potatoes, and other vegetable food. It is insoluble in water, and cannot be taken into the system till it is converted, by the saliva of the mouth or some other process, into a soluble matter like sugar. Sugar is extracted from plants, and is abundantly present in milk. It needs no preparation for digestion; and is immediately absorbed into the blood when taken into the stomach. Whilst starch may pass through the alimentary canal unchanged, sugar is always absorbed. Hence it is supplied to the young of all mammalia in the milk. Starch and sugar contain carbon,

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