CLINICAL LECTURES ON THE DIAGNOSIS OF CARCINOMA OF THE BREAST IN ITS EARLY STAGES.

(Delivered at St. George's Hospital.)

By A. MARMADUKE SHEILD, M.B. CANTAB., F.R.C.S.,
Assistant Surgeon to St. George's Hospital; late Assistant Surgeon to
Charing Cross Hospital.

LECTURE II.

(Concluded from page 1382.)

CYSTS OF THE BREAST.

Cysts of the breast closely simulate scirrhus cancer when they are small, tense, single, with thick walls, and deeply seated in the mammary tissue. Large cysts, or cysts associated with adenomata or sarcomata, should not give rise to difficulty. In most of these there is a discharge from the nipple, and a sense of elasticity can always be elicited. It is not the object of this paper to deal with the pathology of cysts of the breasts. They form in a variety of ways, and may be found in women of any age. They are peculiarly common in cases of chronic mastitis and in elderly women. No doubt they then originated in duct obstruction. When you lay your fingers flat upon the part, and feel a hard swelling deep beneath, it is most difficult for you to appreciate or believe that such a swelling may be a tense thick-walled cyst, containing a little honey-coloured fluid. Cancer is usually single

Fig. 4.—A breast containing a large thick-walled cyst and one smaller one.

and isolated; cysts are very commonly multiple, and the mere fact of finding more than one such swelling in a mammary gland is in favour of cyst. Yet one may be a cancer and the other a cyst, and the association of cyst with chronic inflammatory thickening and with early scirrhus is not uncommon. How, then, are you to deal with cases like these? Your answer is a clear one; it is impossible without making an opening into the swelling to be sure whether it is cancer or a more simple malady, and the treatment must be left in the hands of the surgeon to determine what is to be done when the seat of mischief is explored.

I can hardly tell you of the numerous cases I know of, and have seen, where breasts have been removed for a simple cyst. I have once done it myself for an old galactocoele, and was in this case deceived by the use of that most misleading instrument, the grooved needle. Exploratory incision can alone clear up these cases, for the contents of cystic formations, as in old galactocoeles, are not always fluid, but thick, cheesy, or even cretaceous.

A good example of cyst of the breast, simulating scirrhus, is the following:

A woman, aged 67, was admitted into St. George's Hospital, under Mr. Haward's care, in September, 1890. She had noticed a swelling in the left breast for an indefinite time. It was noticed that the patient looked thin and anxious, and at the lower and outer part of the left breast was a small hard tumour connected with the skin, but fully movable on the parts beneath. The nipples were deeply retracted on both sides. The tumour

was opened under anæsthetics, and a quantity of turbid fluid squeezed out. The capsule of the cyst was dissected away, and the patient did well.

A case more closely resembling scirrhus in age, appearance, and local symptoms, it would be difficult to describe.

Deeply-Seated Cyst of the Breast simulating Cancer: Removal of the Gland.—A married woman, aged 45, was admitted into a London hospital on August 20th, 1880. A fortnight before admission, from no assigned cause, she noticed a tumour in the left breast. She had been seen by Sir J. Paget, who pronounced that it was not cancer. The registrar thus describes the local symptoms: Situated in the left breast, just below the nipple, is a hard, indurated, roundish mass, the size of a hen's egg, movable on the subjacent parts, and distinctly circumscribed. On moving the tumour upwards and downwards there was some dimpling of the skin. The nipple was not retracted, and there were no enlarged axillary glands. The whole breast was removed without exploratory incision, and then a cyst, the size of a walnut was disclosed, with smooth lining membrane. The remainder of the breast substance was perfectly healthy.

Hard Tumour in the Centre of the Breast proving to be a Cyst.—A woman, aged 46, married, was admitted into St. George's Hospital in August, 1883. She had noticed a tumour in the left breast for about three months. She was a stout, florid woman. The skin, nipple, and axillary glands were all unimplicated. Deep in the middle of the breast is a very hard, rounded, freely movable lump the size of an orange. An exploratory incision was made into this under ether, and the supposed solid tumour was proved to be a cyst, with clear contents. The opening was enlarged and the cyst well dissected out. The patient made a good recovery.

Galactocoele simulating a Solid Tumour.—An unmarried girl, 21 years of age, was admitted into St. George's Hospital in January, 1891. For three months she had noticed a "lump" in the left breast. There was no apparent cause for its occurrence. It has increased in size, and is at times painful. The opinion was expressed that the growth was an adenoma, for it was described as nodular and movable on the deeper parts. The nipple was not retracted, there was no discharge from it, and the glands were free. On exploratory incision the supposed tumour turned out to be a cyst. It was full of thick, curdy material, either a galactocoele or a sebaceous cyst. It was treated successfully by dissecting away the wall of the cyst.

Galactocoele.—A young woman of good health, aged 28, had a child when she was 21, whom she had nursed. Since this time she carried in the neighbourhood of the nipple a hard tumour of the size of a mandarin orange. Divers physicians who had examined the case thought she was affected by cancer. M. Reclus was called to see her, and, though confirming the symptoms which had allowed of the statement of malignancy—notably the existence of two or three little enlarged glands in the axilla—he was struck by this peculiarity, that the tumour remained absolutely round, and that its surface was, as it were, covered with protuberances or lobules of mammary gland. This decided M. Reclus to make an exploratory puncture with Anel's syringe, and a milky fluid was withdrawn, which was examined by M. Léon, the interne, and found to be composed of colostrum. Some days afterwards M. Reclus aspirated and filled the cyst with an emulsion of iodoform, a cure ultimately resulting.

FIBRO-ADENOMATA AND SARCOMATA.

From these tumours scirrhus is, as a rule, easy to diagnose. Fibro-adenomata are found in young women, often multiple or in both breasts, firm, not of stony hardness, and encapsuled, so that they slip about under the pressure of the fingers. An incision in such cases reveals a white lobulated fleshy tumour, which will generally slip out of its capsule when the latter is incised. Sarcomata are commonly associated with cysts, and they are quite devoid of the stony hardness of true scirrhus. This is a sufficiently distinguishing sign.

In practice, however, sometimes old women bear fibro-adenomata in the breast, and these tumours become exceedingly hard. Furthermore, through blistering, iodine, or, perhaps, punctures, inflammation occurs, and then the tumour becomes glued, as it were, to its capsule, and the surrounding breast substance is thickened and inflamed. The leading clinical symptom, mobility, is lost, and the resemblance to scirrhus is very close.

Here is an additional reason why you should always cut into scirrhus before removing it. You will generally be able then to tell an adenoma, however hard, by its definite capsule, though in old women, perhaps, it is best to remove the breast in such instances. For you will hereafter learn that cases are recorded where adenomata in the breasts of elderly women have apparently been associated with scirrhus.

Very Hard Fibro-adenoma of the Breast in an Elderly Woman simulating Scirrhus.—A widow, aged 42, was admitted into St. George's Hospital on July 30th, 1884, with a hard tumour described as the size of a tangerine orange deep in the left mamma. The axillary glands were not affected, but no note is made as to the condition of the nipple or skin. An exploratory incision was made, and the tumour was so hard that it felt almost gruffy. The whole breast was removed. Examination with the microscope showed that the tumour was an exceedingly hard fibro-adenoma. It was definitely encapsuled, but adherent to its capsule by inflammatory material, having thus lost the mobility so characteristic of adenomatous tumours.

Hard Fibro-adenoma in a Woman, aged 50, simulating Scirrhus.—A married woman, mother of three children, aged 50, was admitted into St. George's Hospital on October 5th, 1892. She had noticed a swelling in the left

breast for about three months. She attributed its formation to a blow. About the centre of the left breast was a hard, scirrhous-like mass. The nipple was slightly retracted, and the skin adherent. No hard glands in the axilla. On October 6th an exploratory incision was made. Even then the nature of the case was doubtful, and the cut surface appeared to be like sarcoma. The whole mamma was therefore removed. The tumour was examined by Dr. Rolleston. He reported that the tumour was a fibroadenoma, surrounded by old dense fibrous tissue. There was no evidence of sarcoma or cancer.

Occasionally gummata form in the breast; the diagnosis is to be made on general principles.

Gumma of Breast: Rapid Disappearance under Iodides.—A spare, married woman, aged 30, of very dark complexion, came to the Waterloo Bridge Hospital on May 27th, 1895. There was a hard and slightly tender lump the size of a tangerine orange, close to the axillary side of the right nipple. The nipple was a little retracted; the skin was not adherent. There were no enlarged axillary glands. The woman stated that the swelling had existed for about two months, but it may have been longer. The tumour is not movable, and the skin over the centre of it is a little dusky in colour and inflamed. The centre of the tumour is elastic; tender on pressure. There are no similar swellings elsewhere. The woman has been married for six years and has had one child, now 5 years old. No miscarriages. The tongue is fissured, with suspicious spots of white thickened epithelium at the sides. There are some plaques and fissures on the lips. June 10th. After a fortnight's course of potassium iodide and mercury, the lump in the breast has entirely gone. No local measures have been adopted. One can hardly doubt but that it was a gumma. January, 1896. I communicated with this patient, and she replies me that she still "remains" perfectly well.

PHANTOM TUMOURS.

Patients are apt to imagine that almost every disease of the breast is cancerous, and accordingly you will find that the fears and horrors of cancer haunt those who suffer from the knots and lumps of mastitis or abscess, or such harmless growths as the simple adenomata. These can hardly be called imaginary diseases, yet now and then in practice you will meet with cases of real imaginary disease "phantom tumours" about the breast. Some of them are really due to slight mastitis with excessive nerve pains, some to natural prominences as a costal cartilage, and others to a curious contraction of the pectoral muscle. Regarding all such cases the neuralgic symptoms, the tenderness, hyperæsthesia, and bitter complaints of pain by the patients are far in excess of what would really obtain in early cancer. Moreover, often enough a suggestion of cancer has in some powerful way been pressed upon the mind of the individual. She has had a tumour removed from some other part, or a relation or friend has died of breast cancer, and she has thought or read much about the disease. You must carefully estimate the mental condition, and as regards the rule of diagnosing imaginary affections from carcinoma, you have only to observe that no true tumour exists. It may be beneficial to examine such a case under anæsthetics, and then a curious contraction of the pectoral muscle which some of these persons exhibit will quite fade away and disappear under your examining touch. I have seen one case of this nature but I regret I cannot read you the notes of it. In my own experience I must have seen at least half a dozen patients who were convinced that a prominent costal cartilage was a tumour, and, so far as I recollect, in nearly all of them there were temporary and severe neuralgic pains, and the patients had lost relatives from cancer of the breast. I append some notes of cases which bear upon these points.

There is also an indefinite condition of the breast found in young unmarried women to which the term "hysterical breast" is often applied.⁸ The breast is enlarged with great hyperæsthesia of the skin. The symptoms are aggravated at the menstrual periods with increased pain and swelling. Often enough indistinct tumour-like masses are to be felt, which give rise to great alarm. Personally I believe these are due to some obstructions of serous secretion and consequent induration, but they have been attributed to an œdema of the connective tissue of the gland, similar to those œdematous patches on the limbs sometimes seen in hysterical subjects, when one is always in doubt whether some strange nerve disorder is at the bottom of the symptoms or whether they are produced artificially.

Anyhow, you will find in the cases I have described that the fear and impression of cancer is often strong, while the hyperæsthesia, signs of hysteria, age of the patient, and absence of a distinct tumour will enable you to confidently negative any such suspicions.

Supposed Cancer of the Breast due to a Prominent and Painful Costal Car-

⁸ *Journ. de Méd.* August 10th, 1895.

tilage.—A single woman, a nurse aged 42, came to my out-patients' room at the Waterloo Bridge Hospital on June 3rd, 1894. She had suffered, according to her own account, from pain and uneasiness about the left breast for two or three years, getting worse and worse. She had noticed a painful lump at the upper part of the breast. On examination the breast was flaccid and shrivelled, but the nipple was normal, and there was no dimpling of the skin. Careful examination failed to detect any definite tumour. The parts were, however, very sensitive, and the patient pointed to the "tumour," as she termed it. This was a prominent left third costal cartilage, such as is not uncommon in women who have bony and prominent thoracic development. It was very tender, she could hardly bear it touched, and the pains on pressure radiated widely over the chest and down the arm. She had volunteered the information that during her professional duties she had nursed a patient with a cancer of the breast in this situation, and had afterwards "seen it in a bottle with the roots attached." Since then she had carefully examined and watched her own mammary regions with the above result. This patient was treated with bromides and iron, but she remained long unconvinced, and seemed to get more relief from free blistering over the prominence than anything else. Had she moved in more elevated circles she would doubtless have "gone the rounds" until she found someone ignorant or unscrupulous enough to submit her to operation or "cure" by some of the many bogus remedies for carcinoma always in vogue.

Phantom Tumour.—A housemaid, aged 27, was admitted into St. George's Hospital on February 21st, 1893. For about a year she had suffered from pains in the right breast, and for six months a swelling had been noticed at the upper and outer side of the mamma. A small tumour, described as tender and movable, was to be found at this situation. The skin was not adherent, and the nipple and glands were unaffected. On February 23rd the tumour was cut down upon by an incision about 3 inches long, along the outer border of the pectoralis major. No tumour could, however, be found. The wound soon healed, and on March 2nd the patient was discharged quite well.

Supposed Cancer of Breast, with Violent Pain: A Neuroma Discovered and Removed.—A married woman, aged 43, came to the out-patient department of St. George's Hospital in March, 1895, and said she believed she had a cancer in the left breast. She had one child, many years ago, and suckled it. Nothing was wrong with the breast until two years ago, when she began to suffer from acute pains in the axillary margin of the left breast. She handled it excessively, and often rubbed it with various liniments and embrocations, and at last persuaded herself that she found a tumour. Two doctors whom she consulted agreed in this opinion. On examination the nipple and skin of the breast were normal, and there were no enlarged axillary glands. Careful examination failed to discover any tumour, but there was marked hyperæsthesia and pain on handling the axillary part of the breast. At last a small nodule, the size and shape of a grain of barley, was felt under the skin. On pressure upon this, severe shooting pains were experienced down the arm and over the thorax and neck. It was obvious that this was an instance of the painful subcutaneous tumours so often found in the arm. On March 21st the little growth was removed by Mr. Gardner, the assistant house-surgeon, under cocaine. Under the microscope it consisted entirely of fibrous tissue. The patient was completely relieved of her symptoms by the operation, but the true nature of the case might readily have been overlooked.

PEDUNCULATED TUMOUR OF THE NIPPLE OR AREOLA.

I need only mention this affection to tell you that carelessness alone could lead to its being mistaken for cancer, since it is always of extremely slow growth. When of large size it fungates, bleeds, and exudes a moist stinking discharge, so that the epithet of "bleeding cancer" is often applied to it by the ignorant. The accompanying illustration (Fig. 7) is from a lady, aged 72, who had borne one of these tumours for over twenty years. She always refused to have it removed, and it did her no harm so long as she protected it and kept it clean. Several medical men had called it "cancer." The best articles on this curious affection I know are those by O'Ferrall in the *Dublin Journal of Medical Science*, and by McSwiney in the *Reports of the Dublin Pathological Society* for 1875.

The largest pedunculated tumour of the areola I ever heard of read of is described in vol. iii of the *Pathological Society Transactions*. It was removed from a woman, aged 44, in the Middlesex Hospital by Mr. Shaw. This tumour had lasted for ten years, and was stated to have commenced as a small wart near the nipple. The pedicle was as thick as the finger, and contained two pulsating arteries. The tumour itself was lobulated and about the size and shape of the mammary gland. It weighed no less than 5 ounces.

SKIN AFFECTIONS.

When the integument of the thorax is covered all over with hard tubercles, varying from the size of a No. 1 shot to a shirt button, you will find generally that this is secondary to a deposit of scirrhous in one or the other mamma. The same remark applies to the so-called "cancer en cuirasse," where the integument becomes infiltrated with cancer until it is thickened, hard, and board-like. True epithelioma of the skin of the mamma is very rare, though I have told you it has been described in the areola and about the nipple. Most of the little ulcers forming in the skin about the breast which I described to you in a previous lecture, though they look like epitheliomata, are really true scirrhous.

A pretty clear case of epithelioma is recorded by Dr. Van der Byl in vol. ix of the Pathological Society's *Transactions*, in a lady, aged 68, who was also seen by Arnott. The growth occurred on the axillary aspect of the skin of the mamma, and appeared to have extended deeper than is usually the case. The author did not consider that it arose from a sebaceous cyst, but considered it analogous to the encysted epithelial tumours found in the liver by Rokitsky.

Fig. 7.—Pedunculated fibrous tumour of the areola and nipple, erroneously diagnosed as cancer. It is lobulated and foliaceous on the surface, and had existed for over twenty years on the breast of a lady aged 72.

There are few affections of the skin of the mamma which really simulate cancer. I have known the fungation of granulations from a neglected abscess cavity or sinus to be mistaken for carcinoma; but the mistake should not be made, for the edges of the ulcer are soft and overhanging and quite devoid of the gristly infiltration of carcinoma. Tertiary syphilis of the skin about the areola usually shows distinct serpiginous outlines with dusky margins, and it tends to heal leaving white depressed scars. The scars are circular in outline and brown or black. The areola is commonly fissured and cracked, as depicted in the coloured illustration published in this JOURNAL on June 6th.

I have already related to you the history of a gumma of the breast. Sometimes such cases will be brought to you when the gumma has sloughed, and there will be a deep circular pit in the breast, with a yellowish-coloured slough at the bottom of it, the edges being overhanging and thin. But of all the skin affections liable to be mistaken for cancer, keloid of the skin of the breast is apt to give rise to the greater number of errors. For some reason or another the skin of the thorax and mammary region is very prone to be attacked with this curious affection. Some authors have asserted that it comes spontaneously, but I have never seen a case which did not originate in some scar, though as insignificant as the cicatrices left by acne or small boils. About the mamma incisions for abscess, or the destruction of the skin by neglected suppuration, may be followed by keloid. If ever you have seen this disease you will never mistake it for cancer. The shiny white ivory-like or pinkish surface, the claw-like processes inclined to be pink in colour, stretching around into the healthy skin, and the burning itching pain are all highly characteristic (see Plate in JOURNAL of June 6th, Fig. 1).

Mr. C. Heath refers to a case of keloid of the breast in a lecture published in the *Lancet*, May 6th, 1871. He showed the case to the late Mr.

Charles Moore, a good authority on diseases of the mamma, and the latter was inclined to believe it to be scirrhus. A case of keloid attacking the breast was related by Addison in his original paper.⁹ It is interesting to observe that the disease followed upon the discharge of an abscess, and we can hardly doubt but that the affection attacked the scar. It was curious, however, that tubercles of it were scattered about the skin and on both breasts. Addison's second case was on the skin of the left breast of a man aged 37, who was sent to Mr. Bransby Cooper by one Whateley, a surgeon of Berkhamsted. The case was several times submitted to operation. Some years ago a mother and daughter were outpatients under my care with keloid growths over the skin of the breasts, which had followed the application of a strong acetic acid liniment.

I have also to remind you that such affections of the skin of the mamma as melanotic warts, ulcerating sebaceous cysts, or sarcoma must not be loosely termed "cancer of the breast."

Sarcoma of the Skin over the Mamma.—A woman, aged 30, was admitted into St. George's Hospital in February, 1891, with a small superficial tumour in the skin of the upper part and axillary margin of the right mamma. She stated that she had suffered from abscess of the breast fourteen years before. For no less than fifteen years she has noticed a small lump in the situation of the present growth. It has gradually increased in size, and has been attended with "shooting pains," while the skin over it has become reddened. The tumour was described as about an inch long, and half an inch broad. It was freely movable, and did not involve the subcutaneous cellular tissue. The skin was reddened, smooth, and adherent; the breast was normal, and the axillary glands not affected. An abdominal tumour was also discovered, which was not operated upon, but which presented many of the characters of ovarian disease. The tumour of the skin of the breast was removed. Microscopical examination by Professor Delépine showed that the tumour was a spindle-celled sarcoma, beginning in the true skin.

I have thus tried to place before you some of the main distinguishing signs between scirrhus and the diseases which resemble it. I have shown you how in many instances exploratory incision alone will make the diagnosis certain. Much that I have said will explain to you those marvellous cases of "cancer cures" where instances of this disease in the breast have been remedied by this or that nostrum. I regret to say that the public and some members of our profession are too apt to term various diseases of the mamma "cancer," and if what I have said impresses upon your minds the difficulties which hang round these cases, and the caution and circumspection with which you should approach them, it will be your first step towards their study and recognition. I would advise you all not only to see, but to take notes of, some cases of cancer of the breast, and follow out their after-history if you can do so. Be assured that a good and practical knowledge of the management of such cases, especially towards their sad terminations, will be of the greatest use to you in after-professional life.

THE INFLUENCE OF ACUTE SPECIFIC DISEASES ON LEPROSY.

By P. EVERARD TODD, M.B.,

Medical Officer in charge of the Leper Institution, Robben Island, Cape of Good Hope.

THE following information is designed to show what influence certain acute specific diseases may have upon the course of leprosy. I have received valuable assistance in collecting it from Mr. Arthur Thornton, M.B., Assistant Medical Officer, Robben Island.

Erysipelas: 7 patients died of this disease; 36 per cent. of those who contracted it were worse afterwards, and in 64 per cent. there was no improvement.

Measles: 12.5 per cent. of the patients who contracted measles were rendered worse; there was no improvement in 68.7 per cent., and temporary improvement in 12.5 per cent. Measles being a disease of childhood, and the average age of commencement of first symptoms of leprosy being found to be amongst 645 patients 26.4 years, one would expect to find few lepers affected with measles, and statistics are too meagre to carry weight. In collecting the information with regard to measles care has been exercised to eliminate all doubtful cases, and only those have been accepted in which it was clearly shown that an epidemic existed at the time in the locality where the patient lived.

A large number of tubercular lepers are affected with pulmonary tuberculosis, and the death-rate from this disease is a high one. After a patient becomes affected it can be noticed that the facial infiltration due to leprosy diminishes very considerably. P. C., a man, since dead, was a marked

Med. Chir. Trans., 1854.