A Clinical Lecture

ON

CHRONIC TRAUMATIC MASTITIS.

BY
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[With Special Plate.]

For many reasons the term "traumatic mastitis" has been applied to the class of case I am about to describe. I have not been able to adduce any opsonic indication of an infective process, although cases have been tested, before and after massage, for staphylococcus, streptococcus, pneumococcus, and *Bacterium coli communis* infections; neither has there been any disturbance of temperature when regularly taken, nor in the quantitative and qualitative estimation of leucocytes in the blood. There was no enlargement of lymphatic glands. In two cases I have been allowed to puncture the centre of inflamed nodules; there was no growth on the media inoculated, nor were any micro-organisms stained in the blood extracted from the inflammatory foci. Moreover, the cases recovered when perfectly adjusted corsets and mammary supports were applied.

Added to all these negative points there remains the fact that I have not been able to examine efficiently the actual lesions, because they recovered, and there was no justification for adopting operative procedure. Therefore I am not justified in asserting positively that there is no infective agent in them; but, after all, the practical fact remains that the pathological state of affairs can be prevented and cured by corsets and mammary supports which are properly applied and properly made.

In chronic traumatic mastitis one breast may be affected, in which case it is usually the right; but the affection is more commonly observed in both breasts. The condition is usually worse at the menstrual periods. There are generally two or many painful, tender and hard lumps in the breast. The pain is increased by the jolting of coming downstairs or walking on hard pavements and so forth. The lumps are situated most commonly in the lower and outer parts of the breast, but they are not infrequently found in the extension of the gland towards the axilla, at the lower and inner parts of the gland, and at the edge of the inner part; the situation of the cancer in Fig. 3 is an example of the last. There is sometimes a history of the lumps getting smaller and larger, and during their resolution one comparatively large lump may be observed becoming two small discrete nodules before disappearing. There is no abnormal adhesion of the lumps to the skin, and no enlarged lymphatic glands can be felt. In the case of a young girl blood escaped from the nipple after the patient had bent quickly forward, an act which caused a staybone to dig into the breast at about the situation seen in Fig. 1A. The corset and breast supports in this case were properly adjusted, and there has been no more trouble. In another case the skin was actually bruised by the impact of the staybones upon the breast when the patient bent forwards. I may state here that the bodice of the dress is often stiffened by whalebone or steel supports, and on these the breasts may be impaled in bending either forward or laterally.

Some patients realize that the stays are causing their trouble, and come up with their staybones and steels bent, broken, or removed; or having already adopted a form of corset designed to remedy their condition, after having consulted a corset maker. But most of them have no idea of connecting the cause and effect.

I believe that corset makers do not sufficiently realize that when the patient bends forwards or laterally, even when wearing what appear to be sufficiently low corsets, the breasts practically may be impaled upon the tops of the bones or steels.

The disease is rarely acute enough to necessitate the advice of rest in bed and hot fomentations.

From what has been said, you will realize that the corsets which are worn by these patients are the main cause of the continuation of the symptoms, if not actually their originating factor. I believe these corsets are in

most cases the determining cause of this variety of mastitis.

I cannot show you microscopical sections of this condition, because all my cases have recovered and no excision has been necessary. I could show some interesting sections which I have made of breasts, removed *post mortem*, which were supposed to be normal; but I would rather make that the subject of another lecture. Perhaps, however, I may be allowed to digress in order to say that when sections of them are observed under the microscope one finds in some of these cases: (a) Chronic mastitis—that is to say, a condition in which lymphocytes, spindle cells, and a few polynuclear leucocytes are seen between the alveoli of the glands, and an immense amount of fibrous tissue separating one cluster of alveoli from its neighbours; (b) in other breasts one sees much epithelial proliferation into the alveoli and ducts; (c) in other breasts there are to be seen multiple cysts, lined by cubical epithelium, into which are growing intracystic papillomata—the epithelium covering which can be seen to be undergoing regular mitosis; (d) whilst in other cases there are signs of tissue proliferation which I have shown to various authorities, some of whom believe that the appearances indicate early duct cancer until I inform them that they have been looking at sections made from breasts taken *post mortem* from patients who died of renal or heart or lung troubles, as the case may have been, and in which no breast symptoms were complained of; (e) in yet other cases a combination of any of the above changes may be seen in the same breast. I have never seen in any of these cases an unsuspected alveolar carcinoma.

I refer to these interesting sections not because I believe that they result from traumatic mastitis, although some of the mastitis observed in them may have been traumatic, but because it is important to know that a great deal of pathological change may be taking place in breasts which are apparently normal—a fact which emphasizes the importance of keeping all breasts free from chronic traumatic irritation.

As I have said, the main causes of this type of mastitis are corsets which have not been made upon hygienic principles; and most of the corsets at present worn certainly have not been made and fitted upon these lines.

Traumatic mastitis can be prevented and cured by corsets properly made. Such corsets may be of two kinds; the better, in my opinion, I will describe first.

1. Corsets which are made so low that a breast cannot be impaled upon them, whatever position a woman may assume. A pair of corsets of this kind cannot support the breast, and a corselet must be worn where support is necessary. A corselet may be one of many kinds, but I believe one of the most efficient to be that seen in Figs. 5 and 6. This corselet consists of several turns of

Fig. 5.

Fig. 6.

webbing adapted to the lower portion of the thorax and shaped to contain the breasts. It is constructed on the principle of a many-tailed bandage; the turns are fixed to a stiffening material behind; in front they end in busks, which must be well padded, especially at the top. The lower border is fixed in front and behind to the corset; the upper border does not reach to the level of the nipples in order to obviate any pressure on them. The corselet is, in the main, self-supporting, but elastic braces

PLATE I.

FIG. 1.—ANTERO-POSTERIOR SECTION IN VERTICAL PLANE OF BREAST, SHOWING POSITION OF CANCER IN CASE I. A, Pectoralis major; B, atrophied breast tissue; C, cancer; D, nipple.

FIG. 1A.—DIAGRAM TO SHOW PRESSURE OF STAY BONE AT SITE OF CANCER IN CASE I.

FIG. 2.—VERTICAL SECTION IN TRANSVERSE PLANE, SHOWING CANCER AT OUTER MARGIN OF BREAST IN CASE II. A, Cancer; B, subcutaneous fat; C, normal breast tissue.

FIG. 2A.—DIAGRAM SHOWING STAY BONE PRESSING ON THE CANCER IN CASE II.

TO ILLUSTRATE MR. G. LENTHAL CHEATLE'S LECTURE.

PLATE II.

FIG. 3.—ANTERO-POSTERIOR SECTION IN HORIZONTAL PLANE OF BREAST, SHOWING CANCER AT INNER MARGIN IN CASE III. A, Pectoralis major; B, cancer; C, nipple.

FIG. 3A.—SHOWING THE POINT OF IMPACT OF STAY BONE AT SITE OF CANCER IN CASE III.

FIG. 4.—ANTERO-POSTERIOR SECTION IN VERTICAL PLANE OF CANCER AT OUTER MARGIN IN CASE IV. A, Pectoralis major; B, atrophied breast tissue; C, cancer; D, subcutaneous fat.

FIG. 4A.—DIAGRAM SHOWING PRESSURE OF STAY BONE ON CANCER IN CASE IV.

TO ILLUSTRATE MR. G. LENTHAL CHEATLE'S LECTURE.

are carried over the shoulders; these join it in the middle line behind, while in front they bifurcate above the breasts, one strap passing to the corresponding busk, the other to the side of the corselet in relation to the anterior fold of the axilla where it supports the axillary expansion of the breast. Each corselet must be made for and fitted upon the individual wearer. In my opinion this is the best system of treating the malady under consideration, but some women will not allow it in any circumstances, not because they are uncomfortable or are not relieved—they admit they are. Fashion steps in and abjures it. It seems that altering the type of stays often necessitates remaking the whole of the lady's outfit. For such cases I advise the second type, namely:

2. Corsets which are made so high that the breast cannot be impaled on any of their bones or steels whatever position the woman may assume. These corsets also require a pad to prevent undue pressure at the top of the front fastening. My objection to these corsets is that the breasts fall into V-shaped cavities and are more or less pinched between the corsets and the chest wall as well as being pushed upwards and towards each other. Further, the nipples are pressed either upwards or backwards, and I cannot suggest any means of protecting them which women will wear. I believe it to be important to protect the nipples as much as possible, considering their important nervous, vascular, and lymphatic relations.

Dangerous corsets, and those which cause most of the trouble, are neither too high nor too low to prevent the breasts from being impaled upon their bones or steels when the wearers bend forwards or laterally. Such corsets look perfectly harmless when the patient is standing and sitting, but directly the body is bent either forwards or laterally the steels and bones can be seen to dig into the breast, as in Figs. 1A, 2A, 3A, 4A. Very often a patient will come to consult a surgeon in new corsets which do not appear to be in any way connected with the changes in the breasts; but when he sees those which were in constant use, the cause and effects are often very obvious.

I would draw your attention to the relation between chronic irritation and cancer. In this connexion I have repeatedly seen cases in which the position of cancer in the breast corresponded exactly to the site of bone pressure of the stays (see Figs. 1A, 2A, 3A, 4A, which are reproduced from the actual cases of cancer of the breast seen in Figs. 1, 2, 3, 4 respectively). Were inquiry to stop here, one would imagine a strong case had been proved, and that a definite relation existed between the constant irritation from bone pressure of stays and cancer of the breast. But on investigating the matter further, I must say that I have also seen cases of cancer of the breast in which the corsets worn could not be definitely anatomically associated with the disease; for I have seen people with severe corset pressure on the lower parts of the breasts, but cancer appeared in the upper parts, where no pressure of the kind existed; and I have had patients suffering from cancer of the breast who had never worn corsets at all, and in many of these cases the cancers were situated exactly where injurious bone pressure would have been expected, that is, in the lower and outer margins of the glands. Lastly, although I have shown you cases where cancer has appeared exactly on the parts where staybones have pressed habitually, I have never seen a case of chronic traumatic mastitis from this cause develop into cancer; and it is rare to see a case of cancer in a breast which is also suffering from chronic mastitis from any cause. I do not believe that a breast suffering from chronic mastitis is very likely to be the seat of a cancer. The relation is by no means so close as that which exists between chronic superficial glossitis and squamous epithelioma, or between leucoplakia around the vulva or anus and squamous epithelioma. Hence I am not justified in assuming that because cancer appears in most cases where direct local irritation is applied, this direct local irritation is the cause. At the same time one must realize that it is very common to find staybones impaling a breast at the point where cancer exists, as seen in Cases 1, 2, 3 and 4, which are only examples of a long series of cases. Still, the relation between cancer of the breast and corset irritation cannot stand merely on the fact that the same area of the breast is affected by the two conditions. It must stand upon the

evidence afforded elsewhere of a definite relation between chronic irritation and cancer, a subject which I have discussed in an article entitled *Biotripsis, or Lifewear*, in the *BRITISH MEDICAL JOURNAL*, June 12th, 1909. Ample reasons exist for insisting that patients should never wear anything that can act as a constant source of irritation, especially to epithelial tissue, subject to such varying activity as that of the mammary gland.

AN UNUSUAL FORM OF PERINEAL HERNIA.

BY

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THE following case of hernia appears to be one of sufficient interest and rarity to be placed on record. The patient was a fairly well nourished premature (8 months) female child, aged 3 weeks. Nothing had been noticed to be wrong with the child until the morning on which she was admitted to the General Infirmary, Salisbury. That morning it was found that there was a large bleeding mass in the vulva:

State on Admission.

When taken into the hospital a few hours later, an intensely congested pyriform swelling, bleeding readily when touched, was found lying between the labia. It measured about 1½ in. in length, and 1 in. in diameter, narrowing at its attached end to a thick, short pedicle. The mass projected backwards, covering the vaginal orifice and anus. On turning it forwards, the vagina was found to be unobstructed, and the pedicle was seen emerging from the urethral orifice. A probe passed readily along the urethra, anterior to the pedicle, but could not be swept round it posteriorly. The probe passed into the bladder for a distance of about 2 in. No reduction was possible, and one could not determine whether any gut was present in the sac.

Operation.

The child was operated upon the same evening, and the mass was found to be a thick-walled congested sac, containing a little fluid only. A probe passed readily into the general peritoneal cavity. The sac was removed after ligature of its neck. The stump retracted into the urethra, leaving the external parts quite normal in appearance. There was no difficulty in micturition after the operation, and recovery was uninterrupted.

Histology.

Histological examination showed an outer layer of stratified epithelium derived either from bladder or urethra. There was an endothelial lining, presumably peritoneal, a layer of smooth muscular fibres and connective tissue intervening.

There seems little doubt that the hernia was congenital; whether it had been unnoticed by the nurse until the bleeding from abrasion of the congested mucous membrane, and increase in size from partial strangulation made it obvious, or whether it was recently extruded from the meatus, I am unable to decide. The abraded condition of the mucous membrane covering it pointed to the first alternative rather than the second. As there was no difficulty with micturition either before or after operation, one would conclude that the urethra only was involved, and not the trigone or base of the bladder.

The hernia would seem to have arisen from an abnormally deep vesico-uterine pouch, passing down between the urethra and vagina. From this the sac passed forward through the posterior wall of the urethra, being then extruded through the urinary meatus. I have been unable to find any record of a similar case. Macready (*A Treatise on Ruptures*, 1893), discussing 40 recorded cases of perineal hernia, does not include this form, but quotes a case in which the sac appears to have come down between the bladder and vagina, bulging into both cavities.

I am indebted to Mr. H. L. E. Wilks, who operated upon the child, for permission to record the case.

DURING the current winter semester (1910-11) the number of medical students in the several universities of Switzerland is as follows: Basle, 183 (175 men, 8 women); Berne, 351 (190 men, 161 women); Geneva, 584 (289 men, 295 women); Lausanne, 299 (173 men, 126 women); Zurich, 432 (272 men, 160 women); total, 1,849 (1,099 men, 750 women). Of the whole number, 655 are Swiss, and of these 45 are women.