CLINICAL LECTURE

ON THE

TREATMENT OF CANCER OF THE BREAST
BY EXCISION.

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WHEN you are called upon to advise in a case of cancer of the breast, the first question which, in almost every instance, you will have to consider, is—whether it should be removed by operation. Now, upon what grounds are you to base your decision? The fact of the existence of cancer in the breast being established, it is practically incurable—that is to say, we have no means at present of permanently getting rid of it. The mass itself may be cut out or otherwise completely destroyed, and the patient may be for a time—for years—apparently free from all disease; but at length it will return and gradually destroy life. Cases may be quoted, and indeed are recorded, in which cancer of the breast has been removed by operation, and has never, even in the course of many years, returned; but, however interesting and instructive such examples may be from another point of view, they have, practically, no bearing upon our decision in any case submitted to us for an opinion. If such instances of complete cure could be thoroughly sifted, they would turn out, to say the least, to be very few indeed. All cases are not cancer that have been described as such; but, even accepting the record as it stands, it cannot materially affect our calculation of the result. We may recal such for the encouragement, if need be, of our patient; but, in our judgment, we can give no appreciable weight to them.

Then, if an operation cannot extirpate the disease permanently, what can it do? Why, it may remove all traces of the disease for a time, and so prolong life. About this fact there can be very little doubt. There are some very excellent statistical tables on cancer of the breast which answer, though necessarily in a general way, some important questions. Let me especially refer you to the articles by Mr. Sibley in the forty-second, and by Mr. Marrant Baker in the forty-fifth, volume of the *Medico-Chirurgical Transactions*.

The questions to which in the inquiry before us one naturally turns to statistics to answer are these.

What is the average duration of life in cancer of the breast where no operation has been performed?

What is the average duration of life when an operation has been performed?

What is the average duration of life after operation?

What is the average date of recurrence of disease after operation?

In reply to these questions, I quote the following passages, on the influence of operation on the duration of life, from the papers referred to.

Mr. Sibley says: "It is thus seen that the patients operated on lived 53 months, while those on whom no operation was performed lived only 32 months. This result should not be accepted without making due allowance for certain disturbing causes. In the first place, the cases submitted to operation are certainly more or less selected, and, as a rule, are to be looked upon as somewhat favourable forms of the disease, and thus the duration of life may be only apparently lengthened. Again, in the results just given, all the cases operated on have not been traced to their end; it is, however, right to infer that the numbers stated include a due proportion of cases in which the disease recurred quickly." He gives as the average duration of life after operation, 30.5 months.

Mr. Baker writes: "Some allowance must be made for the patients included who are still living. As many of these are in good health, and may yet live for a considerable time, the average length of life may be taken to be rather longer than the tables by themselves would show. The average length of life taken from this table is—Scirrhus Cancer: primary disease not removed, 43.0 months; primary disease removed, 55.6 months, after first observance of cancer.

"It is hardly necessary to observe that the striking difference in the length of life in all the varieties of cancer, according to the removal or non-removal of the primary tumour, is due in a great measure to the more favourable cases being those for which an operation would be

most often undertaken. But, though it would be impossible to tell exactly how far this may account for the contrast, it seems almost certain that the operation in itself has a tendency to prolong life. This, however, is not a question which statistics alone would answer."

As the average date of recurrence after operation, Mr. Sibley gives 14.8 months, and Mr. Baker 13.9 months. With regard to the average duration of life after operation, I will quote again from Mr. Baker farther on. But I would advise you to read these valuable papers; they are easy of access, and will show you how judiciously the figures have been handled, and how much the worth of the conclusions to which they point is enhanced by the care which has been exercised in not laying upon the tables more weight than they will bear.

It cannot, therefore, be doubted that in many cases life may be prolonged by an operation, to say nothing now of the fact that by this means for a while—it may be for a considerable period—all traces of the disease are swept away. But in order that the most may be got from an operation, we go farther in our question than these tables can answer, and ask, What are the circumstances or conditions of the disease favourable or unfavourable to an operation? Such valuable tables as I have referred to give precision to general experience, and tell us plainly that life may often be prolonged by an operation; but what we want to know further is, when are we to operate in order that we may do good and not mischief? for I need hardly add that in many cases an operation would be nothing better than "an useless and utterly unmeaning cruelty."

First of all, let us look at the tumour itself. It will of course vary in size absolutely and relatively as regards the breast itself; but this is of comparatively little moment. Unless its bulk were something very extraordinary, the mere size of the tumour could hardly affect the question of operation, although, naturally enough, one would rather have a small than a large mass of cancer to deal with. A far more important matter to note is whether the tumour is sharply circumscribed or more or less diffused; is the outline distinct and well defined from the gland structure, or does the mass of disease appear gradually to fade into healthy tissue? There is a very general and strong impression—which is no doubt well founded—that the ill-defined tumours are the worst. Some of them appear to be, as we say, infiltrated into the substance of the breast, and these usually prove to be very ugly cases indeed.

With the degree of circumscription you will probably associate another feature—the amount of induration of the mass. I am speaking, now, of course, of that form of cancer which is usually distinguished as hard scirrhus cancer; but even in this form you may soon learn that there are many degrees of induration, and you will find that the masses which are hardest and densest—stony, as they are called—are usually more circumscribed and slowest in their growth.

A question to which I for one would attach still more importance—although in truth it is closely associated with the last—is whether and to what extent the skin over the gland is invaded by the disease. I venture to think that on this point we sometimes hardly discriminate enough. We employ the term cancer of the breast for all these cases; but many of them are cases of cancer of the breast and of the integuments over it, which means a great deal more. This is a character of the disease which some of us especially dislike. I think it is always, so far as it goes, a favourable sign when the disease, however extensive it may be, is limited to gland-tissue, and the skin, of its natural texture, moves freely over it. On the contrary, those cases appear to me most intensely malignant where the skin is brawny and fixed. I advise you to look narrowly into these cases; more particularly when the nipple is retracted, observe closely the surrounding skin. If it have an unnaturally coarse aspect, look rougher, feel thicker than it should do, you will find, I think, that the case will prove a bad one, even for cancer. But in every case of cancer that comes before you, when the skin appears free, do not fail to pay particular attention to this feature. Apart from its other value, it is useful as a good point in diagnosis between cancer and other tumours of the breast. Take a horizontal view of the surface over the tumour, and see whether you can detect any suspicious depression; raise the integuments between your thumb and finger gently off the surface of the tumour beneath, and observe whether any slight fold or small spot is held or adheres. Should the skin be fixed on the tumour, is it discoloured? If it have a dusky aspect, are there any signs of softening in the centre of the patch? This is the usual course, and, as a rule, will happen sooner or latter. The disease as it advances involves some portion of the skin over it; and this, as it is invaded, undergoes a change, which may be described as a low form of inflammation, until it gives way. A dusky or livid and somewhat softened spot indicates the approach of this event as a natural course; but the affection of the skin to which I first of all alluded is of very different import. That means not merely that the skin is implicated in due course by the advancing disease, as any structure around it will be, but that the skin

itself is the seat of what may be called an independent formation of cancer; and this texture, from its extent and continuity, does not admit of extirpation like the mammary-gland.

Ascertain whether the mass of disease moves freely on the pectoral muscle. The absence of anything like marked adhesion is unquestionably a favourable sign; for, when the gland is fixed, you cannot tell how far the muscle beneath may be invaded. In the worst cases, the whole mamma, with the skin over and around it, is converted into an uniform solid lump, which is not only firmly and immoveably fixed to, but appears to blend with, the muscle below. But short of this, the muscle is often, in various degrees, involved in the disease; and, although this condition is certainly an unfavourable one, I cannot subscribe to the doctrine that under these circumstances an operation is forbidden: but then of course every portion of muscle upon which suspicion may rest must be carefully cut away. Then turn your attention to the neighbouring glands; examine the axilla for enlarged and indurated glands. Undoubtedly affection of the glands tells strongly against the success of an operation, but not conclusively. In the first place, although they are enlarged, the increase may be so slight and with so little induration that it may be they are suffering rather from simple irritation—as they are very apt to do—than from being the seat of actual disease; still, any degree of fulness is always a matter for grave suspicion. Then, although much enlarged and hardened, they may, from their situation, admit of complete removal; they may be dissected out by an extension of the incision by which the breast is removed. When this is done, however, it usually happens that more glands are found affected than we could discover by external examination. One enlarged gland leads to another which lies deeper, and so on. I need not tell you that as you work up towards the apex you get into the dangerous neighbourhood of the great vessels; but, nevertheless, with care and moderate skill you may often make a clean sweep of all suspicious glands. Then, again, in certain cases where the glands, although affected, appear to be in an indolent or passive state, or where, from the general condition of the patient, you have no desire to make an operation larger than is immediately necessary, you may prudently determine to leave the glands alone for the present, only removing the mamma at first, and the glands afterwards by another operation if they should show any signs of activity. But the glands in the axilla are not the only ones which are apt to become directly affected in cancer of the breast: those at the base of the posterior triangle of the neck, immediately above the clavicle, also demand a minute scrutiny. There is, I think, a general impression—and to this I should subscribe—that disease of these is of worse omen than of those in the axilla. They could for obvious reasons hardly be removed, and I have never seen the attempt made; but I have felt them enlarged, although scarcely indurated, before an operation, and have known this unnatural condition to subside afterwards.

Then inquire into the rate of progress of the disease. How long has the patient been conscious of something amiss in the breast? Is the tumour enlarging rapidly? Is there much or constant pain? If the glands in the axilla are enlarged, is she conscious of anything wrong there, and, if so, how long since did she discover this additional trouble? Unless the glands be very considerably affected, patients are not usually aware of mischief there. The slight disturbance that may result is overlooked when the attention is concentrated upon the more obvious and formidable disease. Of course, the more rapidly the disease is advancing the more unfavourable will the prognosis be, and this whether an operation be performed or not. It will influence our decision chiefly in this way. If upon other grounds we are in doubt about the propriety of an operation, our decision may be determined by what appears to be the state of the disease itself. If it appear very passive and indolent, enlarging but slowly and giving little or no pain or trouble, we may be content, at least for the present, to let it alone.

Then we look to the patient herself. Her age? I suppose we may accept it as a general rule that cancers are least active in those who are most advanced in life. The most malignant cancers occur in those younger and full-bodied. In the very old the progress of the disease seems to be determined by the state of nutrition of the body generally. Sometimes it even appears disposed to wither and dry up. It becomes very hard and looks shrunken, and the parts immediately around it preserve their naturally lax and flaccid condition. Such cases as these are best left alone, for it is doubtful after all whether the old woman will live long enough to die of cancer; and, in calculating the risk of an operation, of course we must take into account the declining powers of advanced life. In such cases I am guided chiefly perhaps by the present amount of suffering and distress which the disease entails. Where it gives but little pain and anxiety, I would not attempt to interfere; and I would subject any one far advanced in life to the risk of an operation only for the sake of getting rid of that which was making life miserable. Let it be remembered that the old are less easily disturbed by troubles

than the young: they suffer less acutely, and more readily become resigned.

Then as to the condition of body at which I have just hinted in passing. Undoubtedly the most favourable subjects for these operations are spare ones—persons with very little fat. Except in those who are much wasted, there is always fat in the mammary region; but the difference in regard to an operation is enormous in two extreme cases. In some, removal of the entire mammary gland consists in little more than in complete extirpation of the tumour itself. It is a very moderate operation, and the risk to life is very small; but, on the contrary, in very fat women with huge mammary glands, the operation itself is a formidable one. The incisions are necessarily very extensive, the dissection very free, involving many long sweeps of the knife; the hæmorrhage very abundant, use what precautions you will; and withal, such subjects are very bad ones for shock and repair. Therefore you must always give chief heed to this—the kind of subject you are about to submit to operation. No doubt it is the dread of the consequences of removing the entire gland in these unfavourable cases that has led some to question the rule which strictly enjoins entire extirpation of the gland when any operation for cancer of it is undertaken. This rule, which for a long time past has governed the practice of the most able and experienced surgeons, and which is indeed but a part of a more general one, that enjoins not only the complete removal of every fragment of visible disease, but also that the incisions should be, if practicable, wide of the disease, and that the structure itself, which is the actual seat of disease, should be, if possible, wholly removed—the rule which lays this down is acknowledged by those who have watched most closely and thought most deeply to be a sound one. Still every rule must, I suppose, have its exception; and it may perhaps be a justifiable, nay, even a prudent, course in a case where the fat is very abundant, the breast itself very large, and the mass of obvious disease small and circumscribed, to remove only, yet very freely, the tumour itself, and not the entire gland. But, after all, with regard to the danger of these somewhat formidable operations, I remember that Sir William Lawrence was wont to point out how much depends on the extent of skin which it is necessary to remove. If enough of that can be left to allow the edges to come easily together afterwards, so that the large surface exposed in the operation can be covered and nothing but a simple line of incision left, the danger is very much diminished. He thought far more of the extent of wound left open and exposed afterwards than of the amount of structure removed in the operation. On one occasion he proposed to remove the entire breast, as it was his practice invariably to do when he operated at all, in a case of this kind. If I remember rightly, all his colleagues who saw the case were, without exception, opposed to the operation, because of the enormous size of the breast and the amount of fat about the patient. But Lawrence said, “I shall be able to save skin enough to bring the edges well together afterwards, and so I shall avert, I think, the worst danger of the operation.” Well, he took the whole breast away—and an enormous mass it was—brought the edges carefully together, and the woman recovered without an untoward symptom. Nevertheless, you must always remember—what he never forgot—to cut wide of the disease. This must be your first care; then, afterwards, you may think how your incisions will fit.

There are, unfortunately, strong grounds for believing that germs of the disease exist among the tissues wide of anything we can detect in the way of tumour, so that, after we have removed every suspicious particle, it is only too probable that there are still left behind the seeds of future growth. There is one fact which has always struck me as very significant in this respect. When the disease returns after the breast, which was apparently the exclusive seat of it, has been entirely removed, it comes back as a rule, not in the same structure on the opposite side, not in the other breast, but in structures immediately adjacent to its original site. This proneness to return in the very parts amongst which we are cutting should always be in the mind of the surgeon during an operation for cancer.

Apart from all these considerations, of course you will look to the general health and strength. You will understand what this means; and I will not dwell upon it, only remarking in passing that where on other grounds you decide in favour of an operation, you will not often find that your patient is not strong enough to submit to it. So far as recovery from the operation itself is concerned, it is most favourable amongst the larger ones of surgery.

[To be concluded.]

TESTIMONIAL TO MR. THOMAS DAVIES.—A testimonial, consisting of a large silver cup, together with an address illuminated on vellum, has been presented to Mr. Thomas Davies of Mold, on the occasion of his leaving that town for Leeds.