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THE TREATMENT OF UTERINE FIBROIDS.*

BY

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PRIOR to a hundred years ago there was no treatment known for uterine fibroids. The pioneer work of Ephraim McDowell, Charles White, and Spencer Wells in the removal of ovarian tumours paved the way for attempts at the operative removal of uterine fibroids. Some successful cases were recorded, but in the main the operative results were appalling; and on the principle that it is better to live as an invalid than to die cured, wise doctors in those days advised their patients to wait on the chance that the change of life would bring about an amelioration of their condition. Courageous surgeons, however, were still feeling their way to improvement in methods; and the extra-peritoneal serre-nœud operation brought about a marked reduction in mortality, which fell to about 30 to 40 per cent. Even with this improvement, hysterectomy was still a very formidable operation, and it is not surprising that while surgeons were doing their part, physicians were looking for an alternative plan. So they called to their aid the force of electricity, the applications of which were still in their infancy; and the electrical treatment of fibroids found some enthusiastic advocates, of whom Apostoli will always be the best remembered. I visited his clinic in

Paris in 1892, and the net result of what I saw was the conviction that the value of the treatment was just nothing. At the present time the electrical treatment of fibroids is as extinct as the serre-nœud operation.

Happily, surgery was persevering in its efforts; and in the early 'nineties the foundation of the modern operation of hysterectomy was laid by the intra-peritoneal treatment of the cervical stump, with direct ligation of the uterine arteries. The mortality incidental to hysterectomy again showed a decisive drop, although it was still very high as judged by the standard of to-day. This led surgeons themselves to wander along another by-path—namely, the vaginal route—in the hope of a lower death-rate. For cases in which the tumour was too large to allow a vaginal hysterectomy, the plan was devised of cutting it up and removing it piece-meal by what was called "morcellement"—truly a bloody operation.

By improvements in asepsis and in technique, abdominal hysterectomy soon triumphed over rival methods, and came to be recognised as the standard surgical procedure for fibroids. But there are always some, and probably there always will be some, who hanker after the treatment of tumours by any other method than the obvious one of removing them; and the searchers after the bloodless plan were comforted at the beginning of this century when the eclipse of the electrical star was succeeded by the rise of a more potent planet—namely, radiation by means of X rays and radium. This brings us down to the present time, when it may be said that the rival claims of radiology and surgery contend for the mastery in the treatment of fibroids. The object of this short historical review has been to show why it happens that surgery is not in undisputed possession of the field, and I wish now to examine and appraise the value of these rival claims.

* Abstract of a Post-Graduate Lecture given at the North-East London Post-Graduate College, Prince of Wales's General Hospital, on July 28th, 1926.

We may consider first the

TREATMENT OF UTERINE FIBROIDS BY RADIATION.

Advantages.

By "radiation" I mean either the exposure to X rays or the introduction of radium. Some advocates of radiation prefer the one, and some prefer the other. It is claimed that radiation obviates the necessity for operation; this is regarded as a matter of great importance, because the exponents of this method appear to meet a large number of women who are in such dread of operation as to decline to submit to it. It is claimed further that bleeding is checked or arrested, and that diminution in the size of the tumours is secured. It is assumed that the risks of radiation are less than those involved in operation.

Looking at these points in turn, I may say, first, that in my experience, although many women are nervous of operation, the number of those who fail to muster enough courage to face it is very small when the matter is properly explained to them. The claim that bleeding can be controlled or arrested by radiation is well founded; and if bleeding were the only important result of the presence of fibroids, the advocates of radiation would be in a stronger position than they are at present.

With regard to the diminution in the size of the tumours, this doubtless happens in some cases; in many there is no result. I had a striking example last year, when a patient who had had radiation treatment for two years was sent to me by the radiologist for operation. He kindly allowed me to see his notes, and the entry at the beginning of the treatment was that there was a tumour present of the size of a cocoanut. The tumour when removed was just about that size. In his clinical index of radium therapy, Pinch points out that with the soft myomatous vascular type of fibroid, definite shrinking is frequently observed; but "when the patient is troubled principally with pressure symptoms, due to the size or position of the growth, the prognosis is not so good, and if the tumour be chiefly fibromatous, as opposed to myomatous, in character, but little actual reduction in the size of the mass may be anticipated." Then, as to the question of risk, Lockyer quotes Harold Bailey as placing the mortality risk of radiotherapy for fibroids at 1.5 per cent. As we shall see, surgery can show better results than that at the present time. The argument would have had more force 25 to 30 years ago.

Disadvantages.

The first important disadvantage is that results that follow radiation are partly due to the atrophic effect of the treatment on the ovaries. Healthy organs are sacrificed in the effort to save the organ that is diseased. This was the condemnation of Battey's operation, which aimed at reducing uterine fibroids by the removal of the ovaries.

The second disadvantage depends on the uncertainty of diagnosis. All radiologists agree that radiation is contra-indicated in the presence of tubal and ovarian disease, degenerative changes, adhesions or malignancy. Fletcher Shaw remarks that it is seldom that a conscientious gynaecologist can say definitely, "This uterine fibroid is free from adhesions, degenerations or malignancy, and is not complicated by old inflammatory tubes." Moreover, in the practice of even highly skilled gynaecologists, the diagnosis of uterine fibroids is sometimes erroneous, the condition at the operation proving to be one of uterine carcinoma, ovarian tumours, or tubal disease, with no fibroids present.

In the third place we have to remember that radium and X rays are powerful for evil as well as for good; and that damage may be done to abdominal organs other than the uterus; or the uterine tumours degenerative changes may be set up, leaving the patient in a worse condition than before.

The fourth disadvantage is the uncertainty of results. Although many cures are claimed by the advocates of radiation, it is a fact that in many cases an operation has been performed after much time has been spent and much expense incurred in undergoing radiation treatment without benefit, or, at any rate, without reduction in the size of the tumour.

TREATMENT OF UTERINE FIBROIDS BY OPERATION.

This method can be examined in the same way as the other—namely, by considering its advantages and disadvantages.

Advantages.

The first advantage is that the diseased structures are removed and healthy organs are not interfered with. Here we are thinking specially of the ovaries. It is true that if they should be found to be diseased they are removed, but in that case their function is already destroyed and the patient is none the worse off for being without them. But if they are healthy the patient has the benefit of the continuation of their endocrine function, even if there be no further possibility of child-bearing. She can remain a wife, retaining all the characteristics that distinguish her as a woman.

In the second place, the details of operation are carried out under conditions of exact diagnosis. The pre-operative diagnosis may be erroneous, but in the course of the operation a true diagnosis is arrived at, so that all unhealthy structures can be removed and healthy ones left.

In the third place, the tumours are definitely removed, with very little chance, generally speaking, of a return. I am, of course, not speaking of cases that turn out to be malignant.

It must not be assumed that in dealing with uterine fibroids surgical treatment is synonymous with hysterectomy. It is true that in the majority of cases hysterectomy is required; but in an important minority the tumours can be removed

by the operation of myomectomy and the uterus can be preserved. Nor need it be a battered and useless organ; it may be perfectly functional, so that children are born after the operation. This advantage of surgical treatment is not a small one, but it is perhaps not appreciated as widely as it deserves to be. For some years I have been advocating myomectomy instead of hysterectomy in suitable cases.

As we are here considering the subject of the treatment of uterine fibroids, it will be well to summarise the conditions that call for hysterectomy and for myomectomy respectively.

Hysterectomy is required when the removal of the tumours would leave a mutilated and useless

uterus left after the removal of the tumours is a serviceable organ, capable of child-bearing. In the absence of any one or more of these factors, myomectomy has no advantage, except in the conditions mentioned in the previous paragraph—namely, sentimental objection and association with prolapse.

It will be realised that the age-factor plays an important part in determining the question whether hysterectomy or myomectomy should be done. This is illustrated very clearly in an analysis, made some time ago, of cases from my own practice showing the proportion of hysterectomies and myomectomies in married and in single women at different ages. The analysis is expressed in the following table:—

TABLE SHOWING THE PROPORTION OF MYOMECTOMIES TO HYSTERECTOMIES AT DIFFERENT AGES.

Operation.	30 and under.		31-35.		36-40.		41-45.		46-50.		Over 50.		Total.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
<i>Married women—</i>														
Myomectomy	17	56.6	37	40.1	36	26.7	13	6.1	11	5.5	11	10.0	125	16.0
Hysterectomy	13	43.4	53	59.9	103	73.3	201	93.9	190	94.5	99	90.0	659	84.0
Total	30	100.0	90	100.0	139	100.0	214	100.0	201	100.0	110	100.0	784	100.0
<i>Single women—</i>														
Myomectomy	9	45.0	10	21.3	7	8.3	8	8.6	3	4.0	4	10.0	41	11.4
Hysterectomy	11	55.0	37	78.7	78	91.7	85	91.4	72	96.0	36	90.0	319	88.6
Total	20	100.0	47	100.0	85	100.0	93	100.0	75	100.0	40	100.0	360	100.0
<i>All cases—</i>														
Myomectomy	26	52.0	47	34.3	43	19.2	21	6.9	14	5.1	15	10.0	166	14.5
Hysterectomy	24	48.0	90	65.7	181	80.8	286	93.1	262	94.9	135	90.0	978	85.5
Total	50	100.0	137	100.0	224	100.0	307	100.0	276	100.0	150	100.0	1144	100.0

organ, and in cases in which both tubes and ovaries have to be removed on account of disease. It must be remembered that the primary object of preserving the uterus is to allow of the function of child-bearing; when this is out of the question, there is no useful purpose served by leaving the uterus.

Even when myomectomy is possible, and the ovaries are healthy, *hysterectomy is advisable*, for the reason given above, when the patient is past the child-bearing age; or, in the case of an unmarried woman, when she is approaching that age.

Two exceptions must be admitted. The first has reference to those rare cases in which, for reasons of sentiment, a patient is so averse from the removal of the uterus that the carrying out of this operation would have a seriously prejudicial effect on her happiness and her peace of mind. The second is that when uterine fibroids are complicated by prolapse of the uterus and vaginal walls, it is a great advantage if the uterus can be preserved, even if not functional, so that it can be sutured to the abdominal wall in order to counteract the prolapse.

Myomectomy is called for when three conditions can be satisfied: first, that the patient is young enough to bear children; secondly, that the ovaries and tubes are healthy; thirdly, that the

Disadvantages.

The first disadvantage is the natural objection to operation entertained by all healthy-minded people. As I stated above, it is my experience that very few women decline to submit to operation when matters are simply and frankly explained to them. When the days of operation and convalescence are over, there are practically none who regret having had the operation done.

The second disadvantage lies in the sentimental idea of mutilation implied in the removal of an organ. Here, again, it is found that hardly any women regret parting with the uterus when it is explained that in their case the organ is functionless and a source of danger to them.

The third disadvantage is the question of the risk of the operation. I mentioned previously Bailey's estimate that the mortality risk of radiation treatment was 1.5 per cent. Modern surgery can show better results than that. It is to be presumed that the cases treated by radiation were uncomplicated, otherwise they would not have been undertaken. But in surgery all cases, complicated and otherwise, are included; and examining the figures of my own cases, I find that in the last 1000 hysterectomies for fibroids and benign myopathic conditions of the uterus there were six deaths, giving a mortality of 0.6 per cent.

In 178 myomectomies performed during the same period there was one death, also a mortality of 0.6 per cent.

On all grounds, therefore, it would appear that operative treatment is much better than X ray or radium treatment in dealing with uterine fibroids.

A SYMPOSIUM ON INDIGESTION.

*Being Remarks of the Opening Speakers at a Recent Discussion
on this subject at the Hunterian Society.*

II. THE MENTAL ASPECT.

BY

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THE first and most important emotion connected with dyspepsia is fear. We all know the degree to which fear can exaggerate discomfort into pain and pain into agony. This process is most liable to occur, of course, in hysterics, but those of us who claim to be perfectly balanced as far as our emotional lives go are not immune from such a process. It is probable that the first bogey which arises in connection with dyspepsia is cancer. The idea that a chronic or recurring gastric pain may indicate the early stages of a malignant growth is one that many patients entertain. Frequently they are ashamed of it, and it is only the alert and intuitive physician that allays it. Many dyspeptics who suffer from atonic distension believe that the cardiac oppression is due to actual disease of the heart. This fear is much less challenging than that of cancer, and, therefore, patients are much less disposed to be secretive about it.

INSOMNIA.

Then there is insomnia. I think few of us realise how much insomnia is caused by dyspepsia. A patient wakes up regularly at a given hour—it may be three or it may be six—and cannot get to sleep again for a long time. We ask him if he has any indigestion, and he denies it. But if we ask him to observe himself closely he is likely to discover that though he has no pain or even appreciable discomfort, there is some gas to be released every time. The treatment must, of course, be directed to his digestion and not to his sleep function. This connexion is important in a double way. In the first place, lying awake is a bad thing for the mental life of the average individual. It gives opportunity for much thought that is unduly emotional and inadequately logical. In the second place, it starts the vicious circles of insomnia which is of all the vicious circles of pathology one of the worst. Most people fear insomnia much more than they fear gastralgia. When dyspepsia remains latent, but produces insomnia as an apparently inexplicable phenomenon, it creates the fear of insomnia which

tends to produce more insomnia in a more marked way than the fear of indigestion produces more indigestion. The reason why sleep is broken by so slight an indigestion is simple enough when we recall that sleep is primarily a vascular phenomenon. As far as we know, cerebral ischæmia is the most prominent physiological change that accompanies sleep. Even though it be not the *causa causans* of sleep, we can certainly say that it is an essential condition of normal sleep. In the redistribution of the blood which permits of the brain being devascularised, the most important item is the relative proportion of blood that passes through the descending aorta. Any form of resistance which tends to diminish that proportion must militate against cerebral ischæmia. Hence the weight of a laden stomach or the pressure of a distended stomach both make for an active cerebral circulation, which in turn causes wakefulness. The differences, however, are important. The heavily loaded stomach obstructs the descending aorta chiefly in a supine position; the distended stomach produces its effect in any position; while the former interferes with early sleep, the latter more usually allows the patient to sleep for some hours before the pressure reaches its maximum. In this connection I should like to utter a protest against the routine remedy of most nurses—I mean the glass of hot milk. I consider this a most insidious evil, because by reason of the fact that it is hot and liquid it frequently sends the patient to sleep. But very frequently I believe the fermentation which ensues actually increases insomnia.

One further aspect of fear in connection with dyspepsia I should like to refer to. It is hæmatemesis. Few of us probably realise the profound emotional shock induced by the first hæmatemesis, with all its gruesome suddenness and novelty. If we did realise it, we would understand that the victim will for the future inevitably associate every gastric discomfort with the possibility of a recurrence.

SUGGESTIBILITY.

Now fear in these various forms has two results. The first is to promote dyspepsia, and the second to increase suggestibility. Let us take the latter first. As a class dyspeptics are suggestible. We know that from the proportion of the world's publicity which they pay for. Suggestibility is the handmaid of fear. It is because dyspepsia so frequently brings in its train some haunting fear, such as has been described, that the dyspeptic tends to become less rational and more suggestible in regard to his health. Therefore the quack medicine merchant, the faith-healer, the Christian Scientist, the diet crank, qualified or unqualified, the spas with noisome waters—all these have a definite therapeutic advantage as far as immediate results are concerned. For permanent cures there is something to be said in favour of the sound physician. And here it may be pointed out that the suggestibility of the dyspeptic constitutes a snare to many an otherwise sound physician. The dyspeptic likes