VIII. A CLINICAL AND PATHOLOGICAL ANALYSIS OF A SUCCESSIVE SERIES OF 120 ABDOMINAL HYSTERECTOMIES FOR FIBRO-MYOMATA.

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The operation of hysterectomy has now become one of such common everyday occurrence, that in itself it would be superfluous to attempt to engage the interest of the Fellows of the Society in its description. But in an aggregation of cases there is much of clinical and pathological importance, and it is specially from this aspect that I feel warranted in bringing before you a résumé of my experience.

I have performed the operation 120 times for the following symptoms:—

Clinical Indications:—

Bleeding	85
Size	15
Pressure symptoms	13
Reflex	2
Dysmenorrhœa	3
Constant pain	2

Age.—The ages of the patients were:—

Between 20 and 30	2
„ 30 „ 40	28
„ 40 „ 50	80
„ 50 „ 60	8
Over 60	2

In this connection the overwhelming majority of cases between 40 and 50 is instructive. Of the eight operated on between 50 and 60, only one had reached the climacteric, while those over 60 will be referred to later.

Hæmorrhage.—As is well known, and as the foregoing table amply corroborates, hæmorrhage is the main symptom which calls for interference. Insidious in its commencement, it so slowly reduces the individual to a state of weakness, that only in a few extreme cases does the patient appreciate how far she is removed from health, and only after years of invalidism does she readily consent to operative treatment.

Far more readily do they seek relief from the presence of a large tumour, which only offends their susceptibilities without seriously injuring health. I have, for this reason, removed fifteen tumours, the majority (eleven), as might be expected, from spinsters. The largest, an œdematous growth, weighed 42 lbs.

Severe Pressure Symptoms.—Though frequently attaining large dimensions, these growths usually become readily accommodated, and symptoms from pressure are undoubtedly rare. This probably is accounted for by the fact that the majority of growths arise from the body of the uterus, which is freely movable, and thus permits of their ready access to the abdomen. It is mainly, therefore, when situated low in the uterus that symptoms of pelvic pressure are met with, or when, through a weak lower uterine segment, the uterus becomes retroflexed and the tumour incarcerated. The minor pressure symptom of frequency of micturition is common, but is of trivial importance.

In only five cases of growths from the body of the uterus have pressure symptoms been the sole cause of the patient seeking advice; three being due to retention of urine, one to cramp in the legs, and one to pressure on the ovaries prolapsed below the tumour.

The history of the retention of urine cases was similar throughout, a temporary stoppage before and sometimes during menstruation, due to the enlargement of the uterus and tumour at this time.

As might be expected, the cervical tumours were mainly associated with symptoms of intra-pelvic pressure.

Pain.—Severe dysmenorrhœa, though frequently associated with bleeding fibroids, as a symptom, *per se*, I have only met with twice in this series; once with a cervical tumour, and once with an incarcerated growth in the posterior wall. Constant pain and tenderness of the tumour in uncomplicated cases I have not met with, although it formed the most marked symptom in two of the three cases complicated with pregnancy.

Nervous Symptoms.—Reflex neuroses are uncommon. One case, however, is of special interest, as by the removal of a uterus, the seat of multiple fibroids, a cure was effected of a persistent laryngeal cough, so excessive as to produce violent Laryngismus Stridulus, of such an aggravated nature as to menace the life of the patient. In another instance persistent vomiting was similarly inhibited.

Unlike ovarian tumours, fibroids do not seem to influence the mental state of the individual to any marked extent; one does not, therefore, meet with the drawn, careworn expression so well known as the "Ovarian Facies."

Sterilising Effect.—Perhaps it may not be out of place to give the statistics which appertain to child-bearing. Of the 120 cases, seventy-one were married, forty-two were absolutely sterile, and the remaining twenty-nine had an aggregate of seventy-eight children, which shows a general sterility of slightly over one child each. But still more striking is the fact that the average age of the youngest child before the patient came under treatment was 9 years, which is convincing proof, to my mind, of the sterilising effect of these growths, a question which is at present much debated.

The association of heart and kidney complications, of which so much has been made of by some writers, I have entirely failed to find. Beyond the necessary feebleness of the heart's action due to prolonged anæmia, I have met with

no particular heart lesion which could be attributed to the presence of the tumour. While being impressed with the records of kidney complications, I at first carefully tested the urine in all my patients, but met with such negative results that I have completely abstained from continuing it as a routine practice.

It is, indeed, surprising when one considers the near relation of the ureters and their necessary displacement in many cases, how free patients remain from kidney affections, but, so far as I know, I cannot produce a single instance of this complication.

Beyond the mere recording of the symptoms as above, the clinical features call for no special remark, they merely corroborate what is already so well known, and may be shortly summarised as follows:—

1st. The main symptom of fibro-myomata is hæmorrhage.

2nd. They markedly tend towards sterility.

3rd. Only exceptionally are they the cause of pain, severe pressure symptoms, or other complications.

Pathology.—It is from this aspect that a review of these cases is most interesting. They may be tabulated as follows:—

(1) *Of Uterine Body.*

A. Simple fibro-myomata			63
(*a*) Multiple		54	
(*b*) Single		9	
B. Degenerated			20
(*a*) Œdematous		12	
(*b*) Red degeneration or infarction		1	
(*c*) Cystic		2	
(*d*) Calcified		1	
(*e*) Sarcomatous		2	
(*f*) Telangiectatic		1	
(*g*) Diffuse nodular fibrosis		1	

C. Complicated with other growths			24
(*a*) Adeno-carcinoma of body		5	
(*b*) Mucous polypi		9	
(*c*) Cystic ovarian tumours		6	
(*d*) Solid ovarian		1	
(*e*) Broad ligament cyst		3	
D. Complicated with pregnancy			3
E. Complicated with marked ascites			1
(2) *Of Cervix*			7
(*a*) Single		6	
(*b*) Multiple		1	
(3) *Of Body and Cervix combined*			2

As this table shows, the majority of the cases were multiple and simple. Sixty-two grew from the body of the uterus and seven from the cervix; of the latter, six were solitary and one multiple. In two cases there was a universal involvement of the whole of the uterine body and cervix.

The general and histological characteristics of these growths are too well known to warrant in an article of this nature any detailed description. The amount of connective tissue to muscle fibre varies within wide limits. The hard and slow growing are mainly fibrous, while the soft, rapidly growing have a larger proportion of muscle in their composition. Special reference, however, may be made to the primitive character of the blood-vessels throughout the tumour, which are more of the nature of sinuses; they thus necessarily tend to a sluggish circulation through the growth, readily influenced by the varying external conditions, and thus predispose to secondary degenerative changes, which are so common.

As the table shows, the most common change is the œdematous, which occurred in twelve cases; in ten of these it would appear as if the condition was due to a simple interference with the lymph return, resulting in a serous

infiltration of the tissue and a slow secondary degenerative change in the fibres, as evidenced by destruction of their nuclei and granular changes in the cell protoplasm. This, as is natural to expect, occurs in multiple as well as in solitary growths; while the degenerative process may be confined to isolated portions of the tumour, with intervening patches of healthy tissue.

In the early stages the cut surface of the tumour has a softened appearance, and there exudes a clear yellowish non-coagulable fluid; in the later stages degenerated areas are found in all degrees of dissolution, culminating in degeneration cysts with thick coagulable contents. Microscopically, throughout the tumour will be found blood-extravasations showing congestion from slight impairment of the venous return. These advanced changes are more frequently met with in the stalked subserous varieties of tumour, and are probably due to the interference with the circulation in the pedicle. The most marked case in my experience was met with where the pedicle was partially twisted. In two solitary growths, however, the changes were so marked and the appearances so different that it is questionable if one had not to deal with a different variety of growth *de novo*.

These tumours in their general features closely simulated the growths described first by Lawson Tait as œdematous fibroids; like Tait's cases also, they occurred in young women (26 and 28 respectively), and were solitary and interstitial in position.

To the naked eye the tumour showed on section a spongy appearance, with numerous small, well-defined cysts. Microscopically, the degenerating fibro-myomatous matrix was here and there infiltrated with numerous small cells of almost embryonic appearance. No cellular lining could be identified on the larger cysts, but occasional endothelial lined spaces could be seen. Some portions markedly simulated myxo-sarcomatous

change, but it is improbable that they were really malignant, for after removal there has been no evidence of such. I have little doubt that the original tumour which gave rise to the unilocular fibro-cyst was probably of the same character. This growth was met with in a young woman of 31, who suffered from constant uterine hæmorrhage and consequent severe anæmia. The contents of the cyst were amber-coloured and spontaneously coagulable.

Closely allied to the œdematous is the red degeneration, or so-called necrobiotic tumour, which on section shows a dark purplish appearance. On microscopic examination the muscular and fibrous tissue fibres are seen markedly degenerated and stained by hæmatin, similar to red infarction met with in the spleen and kidney. This is probably due to a primary slow interference with the venous return resulting in stasis. Most examples of this change have been found in fibro-myomata connected with pregnancy, which is natural to expect from the increased vascularity resulting from gravidity. These tumours rapidly increase in size, and are said by Fairbairn to be associated with tenderness; though probably from the increased tension, this symptom was not present in the case I met with, nor was it so in a very marked example of Dr Fordyce's, which he kindly allowed me to investigate.

The calcified tumour I removed from a lady of 69, on account of pressure symptoms, from pelvic impaction. The uterus which formed the pedicle was little thicker than an ordinary pencil.

I have already published an account of the sarcomatous tumours removed from patients of 59 and 71 years of age. As I then stated, the history of the cases and microscopic characters of the growths gave convincing proof of their origin from pre-existing fibroids.

The most peculiar of all the growths I have removed is perhaps that which I have designated "Diffuse Nodular

Fibrosis." In this instance, as may be seen from the specimen, the uterus was uniformly enlarged to the size of a six months' pregnancy. On section the cavity of the uterus was seen to maintain its triangular shape. The uterine walls were enormously thickened by innumerable small, white, hard unencapsulated nodules, many of which protruded into the uterine cavity in polypoidal form, but were enclosed by a definite uniform layer of uterine muscle externally, which preserved the smooth regular contour of the uterus as a whole. Microscopically the nodules were mainly composed of white fibrous tissue with a few muscle fibres. I cannot in the literature find any description of a similar case.

The patient suffered from profuse uterine hæmorrhage only.

Interstitial Cervical Fibro-myomata.—I have met with seven examples of this variety of growth, a proportion which quite coincides with the general statistics regarding these tumours, viz., 6 per cent. Two were situated in the anterior wall and five in the posterior; all of these but one in the anterior wall were uninodular. They are of great interest, and I may therefore be permitted to dilate somewhat more specially upon them.

The largest weighed 6½ lbs., but all were big enough to fill the superior strait of the true pelvis, and thus give rise to pressure symptoms; they assumed at the same time the characteristic ovoid shape due to compression by the pelvic walls.

In five the entire wall of the cervix was uniformly involved (supra-vaginal, inter-vaginal, and intra-vaginal portions), and the cervical canal was thus much dilated transversely; while the opposite wall was much attenuated by being stretched over the growth. The os externum was therefore represented by a wide transverse opening which easily admitted one or two fingers.

The body of the uterus remained unaffected, and was evident as a nodule on the top of the tumour. In two instances, it was the seat of a small fibroid.

The bladder in each case was lifted up into the abdomen by the tumour itself when anterior, and by the stretching of the anterior wall in the posterior growths.

In one instance the displacement of the body was very pronounced (see diag.); here it was only found after complete liberation of the growth, retroflexed in the pouch of Douglas. In this instance the operation was complicated by the absence of the usual landmarks, on account of the entire pelvic inlet being filled with the incarcerated tumour, which effectually prevented the detection of the uterus and ovaries implanted beneath it. The bladder also was found pressed against the side wall of the pelvis, and was much enlarged from long previous distension.

Supra- and Inter-vaginal Cervical Fibroid.—This growth in the posterior wall differed from the preceding, so far as physical signs were concerned, in the absence of dilatation of the os externum, as would be expected from the want of involvement of the intra-vaginal portion. The symptoms were simply those of pressure without hæmorrhage. The removal of all these cervical growths is tedious and difficult. Firstly, from their deep situation in the pelvis; and secondly, from the displacement of the surrounding structures, particularly the ureters.

Their close and intimate connection with the rectum, if growing from the posterior wall, is a cause of difficulty at the operation, and danger subsequently, as there is a tendency to infection of the raw bed of the tumour by the bacillus coli, which in one of my cases caused the death of the patient.

To as far as possible mitigate this danger, I now have the rectum thoroughly washed out daily by enemata for several days after the operation.

Subserous Supra-vaginal Cervical Fibroid.—This tumour I removed by supra-vaginal hysterectomy, as after enucleation of the growth from the recto-vaginal septum I was able to secure a good cervical pedicle.

This patient suffered from severe rectal symptoms, constipation alternating with diarrhœa, also severe tenesmus and occasional attacks of retention of urine. The uterine canal, though increased in length, was not stretched transversely as in the former tumours. The intra-vaginal cervix was well marked and appeared normal, while the posterior vaginal wall was bulged forward by the growth. After removal there was considerable suppuration of the bed of the tumour, due to infection of the bacillus coli through the rectum. Evacuation of the pus, however, fortunately spontaneously occurred through the patent cervical canal.

Uniform Enlargement of Body and Cervix.—Of this combined variety I have had but two cases, and so far as my experience goes, they form their most formidable type from the surgeon's aspect, from their unwieldiness, due to size and pelvic incarceration.

In one, the lower pole of the growth was sloughing and gangrenous, and the patient died three days after the operation from septic peritonitis.

Complicated.—The frequency of the association of fibro-myomata with other pelvic and uterine new growths is interesting and instructive.

That ovarian cystic tumours are not more frequent is somewhat surprising, when one considers how often cystic ovarian changes are met with in fibro-myomata.

The presence of mucous adenomata in nine cases is what might be expected from the increased vascularity of the organs; and in the same way adeno-carcinoma, with fibroids, is of importance clinically, in so far as it may account for a rapid development of serious hæmorrhage in a case previously quiescent.

Further, the knowledge of the comparative frequency of adeno-carcinoma makes it imperative that before performing subtotal hysterectomy for bleeding fibroids, the cavity of the removed uterus should be laid open and thoroughly inspected, when, if malignancy is found, the cervix should be excised.

In one of my cases I omitted to follow this rule, and did not recognise the condition till some weeks later. No development, however, of the malignancy has subsequently occurred, though the operation was performed over three years ago.

In one case only have I met with marked ascites, a coincidence so common with simple fibrous ovarian tumours. This is probably accounted for by the uterine tumours being extra-peritoneal.

The association of pregnancy with fibroids has been the indication for hysterectomy in three cases; in one case at the third month, in the others at the fourth month. The reason for thus operating was in two cases severe continuous pain and pressure symptoms; in the third case I did so to complete the operation commenced by another surgeon, who was under the impression he was dealing with an ectopic gestation. It would be out of place in this paper to deal with the treatment of fibroids and pregnancy generally. But it seems to me that unless urgent symptoms manifest themselves pregnancy should, in the majority of cases, be allowed to continue, but if interference becomes necessary, hysterectomy is preferable to the induction of abortion.

In the latter, not only have we the immediate dangers due to hæmorrhage and imperfect expulsion, but the remote complications due to degenerative changes in the growths, and the possible recurrence of the pregnancy.

The Operation.—The method of operation I prefer is the subtotal or supra-vaginal method, and I consequently perform it in all cases where there is no special indication for the "pan" operation—such as cervical involvement or associated malig-

nancy. I have thus adopted the subtotal operation in 105 cases, as against 15 pan-hysterectomies.

I have been led to this decision almost entirely on account of the fact that it is simpler to perform, which of necessity infers that it is quicker and thus safer; as from considerable experience in abdominal surgery I am more and more convinced that rapidity of operation (in conjunction, I need hardly say, with thoroughness) is of great value, and if the same end can be obtained I infinitely prefer the shorter method.

It has been claimed by the supporters of the pan operation that the possible chance of a subsequent malignant cervix is removed. This must be admitted, but as I have already shown in a previous paper read to this Society, the chances of such a contingency are so infinitesimal that they are almost unworthy of consideration. It has also been stated that there is a greater liability to secondary intestinal obstruction from adhesion to the peritoneal cicatrix in the subtotal method. My experience on this point is, I am glad to say, nil, but at the same time I cannot imagine that a peritoneal cicatrix can have any more tendency to attract and fix intestines because it happens to have a stump of cervix behind it.

It would be superfluous to describe the general steps of the operation to a meeting of this Society. However, a few important details acquired by experience might be mentioned. After trying all modes of securing the vessels, I have come to the conclusion that the most rapid and effective way is to clamp with forceps, and after removal of the tumour, tie them. By this means they are more securely ligatured and no time is wasted by reinforcing sutures.

The cervical stump I leave as it is cut; the formation of flaps I consider not only superfluous but harmful, as I believe that the patent cervical canal may form a ready drain should any suppuration occur in the subperitoneal tissues from which

the tumour may have been enucleated, as shown in one of my cases already described.

The layers of the broad ligament I appose by means of a continuous silk suture; and I am careful to invert the edges as in Lembert fashion.

This may account perhaps for the absence of intestinal obstruction from adhesion to the cicatrix.

I have closely followed the popular lines as regards details in technique, with two exceptions—viz., the use of sponges, and suturing the abdominal wound. I prefer sponges to swabs for many reasons. They are softer and kindlier to the peritoneum. They have more resistance in shutting off the bowels in the abdominal cavity, and they are much more absorbent. By this means the peritoneal toilet can be more quickly performed and with less irritation to the delicate peritoneum. And lastly, they are more readily counted.

That they are more likely to be the source of sepsis I emphatically deny. Out of many hundred laparotomies in which I have used them, I cannot recall one instance in which sponges have infected the patient. By suitable methods they can be rendered as sterile as any swab.

The following is the method I employ:—

New sponges are laid between towels and beaten to thoroughly break up cretaceous matter. They are then soaked for 24 hours in a solution of carbonate of soda—½ lb. to the quart—after which they are rinsed until no sand is deposited. They are then kept permanently in jars in a solution of 1-60 carbolic until required. *Before operation* they are put in a solution of carbolic 1-20 over night, and immediately before use they are squeezed from this and placed into hot sterile water. *During the operation* the following rules are attended to:—

After being soiled they are thoroughly rinsed in cold and tepid sterile water consecutively, and lastly are returned to the

hot sterile water ready for use. After the operation they are thoroughly rinsed then soaked in the soda solution for 24 hours. Again rinsed thoroughly and returned to the carbolic solution 1-20.

One set of sponges may, if care be taken, suffice for at least thirty operations. They should be squeezed, not wrung, as by this means they are prevented from being torn and ragged, and any chance of leaving small torn pieces in the abdomen is thus avoided.

In stitching the abdominal wound I use the through-and-through method, using silk-worm gut as the suture material. So far as I know, the cicatrix has proved as firm as that by the other more elaborate methods. Other things being equal, therefore, I again prefer the simpler and more rapid.

The prevention of herniæ, I believe, is mainly to be acquired by the patient steadily wearing a well-fitting abdominal belt for at least a year after the operation. By following this rule, experience leads me to believe that the through-and-through suture does all that can be desired.

The removal of the ovaries along with the uterus must depend on their situation and freedom from disease. In many cases it would materially complicate the operation to save them, and very frequently they appear so pathologically changed that one hesitates to leave them. The age of the patient must also have some guiding influence. When over 40 years of age their removal does not seem to incur such distressing climacteric symptoms, as they do not require so much consideration. In one of my cases in which they were left, the patient died of sarcoma of the ovary four months after the operation.

The post-operative treatment I follow is of the simplest. The patient is allowed and encouraged to lie in whatever position she may feel most comfortable. The continued dorsal position to many is so intolerable that its enforcement is need-

lessly harsh, as no good purpose can be served by doing so. After chloroform-sickness stops, tea, soups, and other liquid nourishment can be freely partaken of. The bowels are moved on the morning of the third day, after which ordinary plain diet is allowed, according to fancy. The starvation of the patient from all food and drink for the first forty-eight hours, and the subsequent existence for weeks on slops, like the enforced maintenance of the dorsal position, may happily now be looked upon as a relic of the past—the nature of barbarism. The first movement of the bowels after the operation should be gentle. Calomel, the favourite aperient in these cases, I find is often too severe, and should not be given to elderly or weak women.

For the first forty-eight hours the urine is drawn off, after which it should be passed voluntarily if possible. Sometimes, however, there is great difficulty in emptying the bladder for many days, as might be expected from the liberties which have been taken with its attachment to the uterus.

To enter into the details of the management of minor complications, though important, would be wearisome, and does not come under the scope of this article. I may say, however, that careful and intelligent nursing has done as much towards the success of the operation as the improved technique of the operator. Asepsis and improved methods have done much to make hysterectomy a safe operation, but the knowledge of details in the after-treatment forms the finishing touch which has reduced the mortality to the vanishing point.

I have unfortunately to record three fatal terminations:—One after the supra-vaginal method had been employed, and two after the pan operation. The former occurred in a patient reduced to the extremes of bloodlessness, who never rallied from the effects of the operation. The latter, I regret to say, were due to septic infection. This, in one instance, was the

result of infection of the bed of the tumour by the bacillus coli, through the bared rectum, from which the large posterior cervical fibroid was separated. The other case I have incidentally already mentioned as due to peritoneal infection from a sloughing growth involving both cervix and body.

To attempt to draw any conclusions as to the relative risks of the two methods from my experience would be absurd, as beyond twice, when I did the pan operation merely to acquaint myself with its technique, all the cases were complicated and difficult.

Indications for Hysterectomy.—Before concluding, it might perhaps be well to dwell shortly on the lines which have guided, and the conditions which have influenced, me in performing the above series of operations; or, in other words, discuss the indications for hysterectomy.

In considering this important question, three factors have stood prominent.

Firstly, the operation :—

Is it sufficiently safe to warrant its adoption except from the direst necessity?

Are there any alternative methods of treatment of equal value?

Are the remote results satisfactory?

Secondly, as regards the effects of fibro-myomata :—

Are they sufficiently detrimental to the well-being of the individual to warrant such radical treatment?

The risk to life from the operation in competent hands has, in the last decade, been reduced to such small proportions as to give rise to little anxiety. Doubtless I have in my 120 cases to record three deaths, but in each and all the condition of the patients was so perilous, that anything short of hysterectomy could not have spared these lives beyond a few months; and in one case, had the operation not been delayed so long, the result would probably have been otherwise.

The alternative methods of treatment are so uncertain that it is questionable if, in the face of the certainty from hysterectomy, they are worthy of adoption.

Removal of the ovaries has practically the same risk as the major operations, which, with its uncertainty, makes it, except in very exceptional circumstances, unworthy of consideration.

Electric Treatment, though doubtless of value in many instances, is also uncertain, and, at the same time, irksome. It has undoubtedly had its day, when hysterectomy was fraught with a large mortality, and can be looked back on with respect, but under existing conditions it may be said it has been entirely superseded.

Medicinal Treatment is seldom curative, and only occasionally even temporarily beneficial.

The results of hysterectomy are perhaps the most happy of gynæcological surgery. With judicious conservation of the ovaries the after-effects of the operation are all that can be desired; and if symptoms are present which justify curative treatment, in the majority of cases it stands pre-eminently first as the method of selection. In some cases of pedunculated tumours and solitary tumours myomectomy is perhaps preferable as a conservative operation, but these are few and far between, and cannot be reckoned as an alternative method of treatment in most instances. In this connection, however, it is well to impress the fact that in cases of severe bleeding from small tumours, the cavity of the uterus should always be explored by the finger prior to laparotomy being performed, so as to exclude the chance of a stalked submucous growth being the sole cause of the symptom.

Much has been written and more has been said regarding the miserable condition of the "so-called" victims of hysterectomy. They are described as not only losing their sexual functions, but actually developing masculine attributes, such as a moustache or a deep, sonorous voice. Still further, it is said

that their mental equilibrium is apt to be rendered unstable; but this, I trust, we surely cannot consider a further simulation of the male. Fortunately, my experience leads me to give such assertions a flat denial. It is probable that after this operation some women have accidentally become insane, and the mole-hill has thus become developed into a mountain. Yet there can be little doubt this canard has seriously prejudiced the popular mind, and ought to be strenuously controverted.

In this connection I have made strict inquiry from a number of medical superintendents of private and other asylums. So far, I have succeeded in unearthing one solitary inmate who, in their experience, had no uterus. In comparison with the so-called mutilation, there are scores without breasts and appendices, and so far as I know from the psychical aspect, there has been no cavil at their removal. Surely the subject bears looking into by the anti-operator. From the other aspect, the fact that numbers of asylum inmates suffer from fibroids might with more weight be urged as another indication for their removal.

Experience teaches me that, almost without exception, the return to health, both bodily and mental, after operation, is perhaps the most encouraging indication for its adoption. The happiness of the individual upon restoration to health, after so many years of comparatively unknown fitness, is indeed striking.

From a clinical aspect, hysterectomy is only to be considered when fibro-myomata give rise to well-marked symptoms, and when the age of the patient is such that there can be no reasonable expectations of a cure from natural causes within a reasonable time.

To operate simply on account of the presence of a fibro-myomatous growth is absolutely reprehensible. But, on the other hand, to condemn a woman to years of invalidism, waiting on the menopause, is infinitely more so, as by this means the

best years of her life are wasted on the only probable chance of a comfortable old age.

In this connection it is well to remember that from the insidious and slow manner by which the patient is reduced to a state of inutility, she is unaware of her inefficiency and weakness, and is but too ready to exist instead of live, and this at the expense of the friends immediately associated with her. She knows not what it is to live in health and happiness, but drags through an undesirable existence in the fond hope that when she is old she will be stronger. To aid and abet in such an existence is unworthy of our profession, when a ready and safe means for its avoidance is at disposal. On this account I urge women, when invalided by hæmorrhage and weakness, to consent to the small risk which the operation entails, that they may become able to worthily fill their places in their respective spheres.

It is the absence of pain which predisposes more that anything to the postponement of the operation from the patient's standpoint, as proved by the readiness with which they agree, nay, even personally urge similarly severe operative procedures, when the appendages are diseased. Yet, I am prepared to say, they are no more social and physical wrecks in the latter case than the former.

In spite of the fact that there is so little danger to life, it is pitiable to think that many women of early middle life are encouraged to exist in a state of semi-invalidism—the result of bleeding—simply in the hope that probably when their best years are past they may be relieved of their suffering, and this simply to avoid undergoing the risk of an operation with such a small mortality. In this there is little doubt sentiment plays a considerable part. The mythical idea of being unsexed by the operation is strong but erroneous. In the working class and the poor, necessity demands otherwise, but among the more affluent classes it is different. Fashionable spas are

flooded with them, and the bath-chair "chaffeur" reaps a large harvest.

Now that surgical methods are so perfected as to reduce the risk of radical operation to the vanishing point, I feel one is warranted in taking a strong position against long-continued temporising treatment; and if a woman's health and happiness are impaired by reason of a uterine fibro-myoma, to urge strongly its removal. To suggest resting so many hours daily and lying in bed during each menstrual period for a space of many years—a method of treatment (if such it can be named) I have too commonly seen—is to my mind puerile at the best.

To sum up, I believe that hysterectomy is indicated in the majority of interstitial and subperitoneal fibroids, which give rise to symptoms, and reduce a woman's health, comfort, and usefulness when under forty-five years of age.

In all cases where urgent symptoms are present at any age when myomectomy cannot readily be performed.

That when no symptoms are present no treatment is necessary, and it is unwise to acquaint the patient that the condition exists.

I may have stated my ideas strongly, but I feel convinced if they were more frequently followed, there would be many a cleaner hearth and happier home than at present exists.

Sir Halliday Croom thanked Dr Haultain in the name of the Society for bringing his most charming and interesting paper before them. They knew that Dr Haultain stood at the very forefront as an operator, and his experience was of the utmost value.

Dr Haig Ferguson said that Dr Haultain had so fully expressed all the views in regard to the treatment of fibroid tumours that it was superfluous to add anything else. He congratulated him most heartily on his paper.

Dr Munro Kerr joined with the others in congratulating Dr Haultain on his brilliant results. He had come from Glasgow to hear the paper, and had derived great pleasure and instruction from it. They should be very grateful to Dr Haultain for bringing forward all those cases and for establishing such brilliant results in the operation of abdominal hysterectomy. It encouraged those who were engaged in gynæcology to lay the operation before their patients as being safe and successful. In his own experience he had done the operation of hysterectomy for fibroids on twenty occasions and had had no fatal result in these cases. He looked upon it as an operation that should have a very small mortality. In his experience it had even a smaller mortality than ovariotomy. Hysterectomy was often extremely difficult, especially in cervical fibroids, but they did not get so often those septic conditions associated with ovarian tumour, especially in cases of abscess of the ovary. He endorsed all Dr Haultain said in support of the operation, for he did think it was puerile to condemn a patient to invalidism by attempting to relieve the symptoms by drugs and electricity. He again thanked Dr Haultain for his interesting paper.

Dr J. W. Ballantyne said he came there to learn a good deal from Dr Haultain's experience, and had learned even more than he expected. He had been impressed by the remarks as to the rapidity of the operation. In this respect they had been going through a phase in regard to hysterectomy as they had long ago with ovariotomy. That was a point of great importance, and he was much struck with it. He was also impressed with the fact that Dr Haultain preferred the "through-and-through method" of suture, and with rehabilitation of the sponge. Dr Haultain did not mention axial torsion of the uterus, in which the twisted uterus formed the pedicle of the tumour. That condition must be regarded as rare, since Dr Haultain had not met with it.

Dr Hellier had listened with extreme interest to the paper, and was especially struck with the admirable record of only three deaths in 120 cases. He could not but think that Dr Haultain had been specially fortunate in his series, for unforeseen and unavoidable accidents are apt to spoil the results of the most careful operator. At the same time Dr Haultain's operative skill was undoubted. He always tested the urine in every operative case. Albuminuria was often due to pressure, but it might be due to granular kidneys. Another indication for operation in fibroids was disease of the appendages, which are often diseased in cases of myoma. Did Dr Haultain favour the high pelvic position? He had not used sponges for several years and had not used through-and-through sutures for ten years, and felt inclined to adhere to methods which had served him so well. He could agree with what Dr Haultain said about the effect of the operation on the patients. Their recovery and permanent enjoyment of health were most striking. No operation gives better results than hysterectomy for myoma. He referred to the occasional occurrence of acute dilatation of the stomach after abdominal section, and mentioned a case in which washing out the stomach had rescued the patient from a most painful and critical condition after hysterectomy. He thanked Dr Haultain for his paper very heartily.

Dr Ritchie said Dr Haultain had given a most able and well-reasoned statement of indications for the operation, and they would be found most useful. It had given him great pleasure to listen to the paper.

Dr Lackie said that, with reference to the clinical indications for operation, he had a patient suffering from chronic rheumatoid arthritis, and also a large fibroid tumour which gave rise to few symptoms. A physician had informed him that secretion from the fibroid tumour might cause the arthritis, and recommended removal of the tumour. He thanked Dr Haultain for his paper.

Dr Campbell asked Dr Haultain if he would give his opinion as to the value of double oöphorectomy in cases of uterine fibroids. A recent writer in the *Journal of Obstetrics and Gynæcology* insisted that there still was a class of case in which this operation was indicated. As to after-effects of hysterectomy there was a valuable paper in which the after-history of ninety-five cases from the Chelsea Hospital had been traced. Of the ninety-five no fewer than ninety were found to be well and strong enough for work. Though two of the remaining five had found their way to asylums, there was no evidence to show that this was in any way due to the hysterectomy.

Dr Haultain thanked the Fellows for the kind way they had received the paper and for the manner in which they had discussed it. He agreed with Dr Munro Kerr that hysterectomy was safer than ovariotomy. In the latter the patients suffered more after the operation. Hysterectomy cases were much better, and the results were equally good. This was because they did not interfere with the ovarian nerves. He had given up removal of the ovaries for fibroids, as it was a much more risky operation and was extremely painful for 24 hours after; unless the patient was thoroughly under the influence of morphia, she suffered great pain; and furthermore, the effect of the operation was uncertain, only curing about 90 per cent. of cases. He did not think it should have a prominent place except under exceptional circumstances. After hysterectomy there was practically no pain, as Dr Hellier said. He had been most fortunate in his cases, and must own to luck; cases sometimes went wrong from the most outside causes, and it seemed hard to count them fatalities; he had fortunately not suffered in this way, hence his good results. He always used the Trendelenburg position; it had been the means of revolutionising hysterectomy. The high pelvic position and the large retractor have been most useful. Sponges were old friends, and he would keep to them as long as they suited him. They

were fairly cheap: twelve sponges, lasting thirty operations, cost 35s.; about 1s. 3d. per operation. As to after-treatment, the patient got nothing till sickness passed off. Then sips of cold water were given for thirst, and gruel and beef-tea allowed the same afternoon. Meat-juice and milk might be given at intervals. On the third day the bowels were moved, and fish and chicken allowed. On fifth day ordinary diet was given. He had met with one case of distension of the stomach after chloroform, which was cured by washing out. In the cervix he never made flaps, but put in a few stitches at the sides and left the cervical canal patent, because it formed an excellent drain. He caught the uterine artery with forceps as it turned upwards, and so avoided grasping the ureter. Dr Lackie's case was perhaps analogous to malacosteon, where removal of the ovaries was beneficial. He did not believe that removal of the ovaries tended to cause mental weakness, as he investigated the question thoroughly and had only found one case. He took the opportunity of refuting such statements. He again thanked the Fellows very much for their attention.