A Lecture

ON THE

USE AND ABUSE OF THE CURETTE.

DELIVERED AT THE POLYCLINIC.

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AFTER I had promised to give a lecture here, I met a medical journalist, and asked him if he could suggest an acceptable subject. He at once said, "Yes, there is a subject on which I wish you would lecture, 'The Use and Abuse of the Curette.'" I wrote to the secretary of the Polyclinic, and told him I would lecture on "the use of the curette." The word "abuse" implied censure of my professional brethren; and this was not my object. But somehow the lecture was announced with the title that had been suggested to me by the journalist to whose advice I had listened. And in this case the wording of the title is not very important. The curette has its proper use, but I think it is used in many cases in which it is unnecessary, and unnecessary use may be properly spoken of as "abuse."

ABUSE.

A Healthy Uterus.

A short time ago I received some pamphlets by post from an eminent American gynaecologist. Among them was one describing what the author considered to be a new operation for cystocele. He said that the first thing was to curette the uterus. I am not going to remark upon the merits of that operation. I suppose every one here knows that cystocele means descent of the bladder and anterior vaginal wall. When such descent has lasted long it often drags the uterus down as well, and then the case becomes one of prolapsus uteri. But as long as the descent is limited to what is called "cystocele," the uterus is as a rule healthy. The patient may have some disease of the uterus as well as cystocele; but, if this be so, it is an accidental complication and not a regular part of the clinical picture. The eminent gynaecologist who recommends curetting as an integral part or a regular preliminary of his new operation for cystocele does not say there is anything the matter with the uterus, nor does he give any reason for the curetting. He apparently thinks that curetting is something in itself beneficial even if the uterus is healthy. If this were a crotchet or freak of one person I should not have troubled you with comments upon it; but I have read often reports of operations and descriptions of proposed operations, in which the first thing done is to curette the uterus, although nothing is stated to lead the reader to suppose that the endometrium is diseased. I take the liberty of thinking that to curette a healthy uterus is not a beneficial thing; it brings with it some risk, slight, it may be, if the instrument is clean and the hand that uses it moderately dexterous, but I cannot conceive that it can do any good to a healthy uterus.

I think I remember in one of Dickens's novels there is a character who says, "Hullo! here's a church, let's have a wedding!" There seem likewise to be surgeons who say "Here's a patient anaesthetized, with a uterus, let's have a curetting." This practice of curetting, not because the uterus is diseased, but because the patient is anaesthetized and the curetting is supposed to be in some way in itself beneficial, seems to me to be an abuse of the curette, and to justify the use of this word in the title of my lecture. If this practice is admitted to be right, the next step is to anaesthetize and curette a healthy person.

Disinfection.

There are cases in which vaginitis is produced by infection, generally either gonorrhoeal or septic, which spreads up to the uterus and along the Fallopian tubes to the pelvic peritoneum and ovaries. Sometimes the diseased tubes require removal. I have seen the precept laid down, that the first step in such an operation should be to disinfect the uterus by a thorough curetting and swabbing with a germicide solution. A "thorough curetting" means, I presume, that the whole of the infected endo-

metrium is scraped away. To do this is, in my opinion, a practical impossibility. When the curette was first introduced, in the early part of the last century, an eminent French gynaecologist, Aran, made some *post-mortem* trials, and came to the conclusion that it was not possible with the curette to detach every part of the endometrium. The operator cannot see the end of his curette, nor are the sensations communicated through its handle to the operator distinctive enough to enable him to know exactly what the instrument is doing. Cases have been published in which the operator has pushed the curette through the uterine wall. But if it were possible with the curette to scrape off all the endometrium, we have no knowledge of how deep in the muscular tissue the pathogenic microbes may have penetrated. This disinfection of the uterine cavity with the curette is, in my opinion, an illusion and an impossibility. It is unnecessary, for the great surgeon who was the first to remove suppurated tubes never troubled to disinfect the uterine cavity, and yet the results of his operations were satisfactory enough to make him go on doing them in spite of strong opposition, and to induce others who knew something of his practice to follow his lead. This disinfection by the curette is not only in my opinion impossible and unnecessary, but it is injurious, for it considerably prolongs the time during which the patient has to be under anaesthesia. Holding these views, I cannot but regard this curetting for supposed disinfection prior to abdominal section as an abuse of the curette.

Endometritis in Virgins.

An eminent provincial gynaecologist published a paper, to which he has given much labour, on "endometritis in virgins," which he thinks is not uncommon and requires treatment by the curette. I think that, except as a result of accidental infection, and occasionally as an accompaniment of new growths, endometritis in virgins does not exist. But the ability and well-known high character of the author, and the trouble he has taken to adduce evidence in support of his views, make it necessary to examine his paper carefully. The first remark that I have to make is that the author has had the bits scraped from the uteri of virgins supposed to be suffering from endometritis examined by a histologist; and his report is: "There is not in these specimens any inflammatory change." Obviously, therefore, the name of the disease is not correct. But this is not so weighty a criticism as might be thought. It is only a verbal question of nomenclature. For many years gynaecologists have talked about "hyperplastic endometritis" and "endometritis polyposa," conditions which are undoubtedly morbid, which are adenomatous growths, presenting little or no evidence of inflammation, and in which the scraping away of the overgrowth is, in the first instance at least, good practice. The author can comfortably shelter himself behind a whole generation of his predecessors in calling a condition "endometritis" in which there is no sign of inflammation.

The really important question is not as to the name which should be given to the change in the uterus, but as to whether in these virgins there was any disease in the uterus, and whether curetting was the proper treatment. The adenomatous growths known under the names of "hyperplastic and polypous endometritis" are, beyond doubt, different from anything seen in a healthy uterus. There is haemorrhage enough to make the patient anaemic, though there is little pain. But as to these virgins: the author, who thinks they had endometritis, says there was overgrowth. The histologist who examined the scrapings says that "their thickness ranged up to one-eighth of an inch or slightly more." This is no thicker than the normal endometrium just before menstruation. The different observations that have been made as to the changes in the endometrium that precede and accompany menstruation are to some extent contradictory; but I think there is no doubt that there are changes; that the condition of the endometrium is different at different periods of the menstrual cycle. Until the normal changes in the condition of the endometrium which precede, accompany, and follow menstruation are known we cannot accurately distinguish between health and disease when the changes present are only slight in degree. In the paper on "endometritis in virgins" from which I have quoted I find nothing to lead

me to think there was any disease of the endometrium. The changes present may all have been physiological and part of the process of menstruation.

The answer may be made to me, "These virgins were all ill, so ill that they were willing to submit to the operation of curetting. If the endometrium was healthy, why were they ill? and why did they leave the hospital after the curetting better in health than when they went into it?" To answer these very proper questions we must examine the cases more closely; and I find that there are other points in which the writer who thinks endometritis common in virgins mistakes a natural condition for disease. One of the conditions which he specifies as pathological is an "infantile cervix." The cervix varies in size in different women: so does the lobule of the ear; smallness of the vaginal portion, which is what infantile cervix means, is no more a disease than smallness of the lobule of the ear. Imagine how an aurist would be laughed at who should talk about an "infantile" lobule of the ear as being connected with disease causing defective hearing! This is because the lobule of the ear is visible to everybody, and every one knows how it varies in size and shape. But the cervix uteri is hidden, and is not looked at unless the owner thinks there is something the matter in that region; and, therefore, when a doctor chooses to call some natural conformation by a long name, and invent a theory to connect it with certain symptoms, the common sense of the public cannot correct him. The next pathological condition the author enumerates as present in his cases is "displacement of the uterus." This, in most of his cases, means "anteflexion," a condition which is the natural shape of the uterus in most virgins, and has never been shown to have any pathological effects. In a few the uterus was displaced backwards, a condition which in about one subject in ten does cause discomfort. It is noteworthy that in one of them the displacement had been cured by operation, but the patient was no better. So that the "endometritis" (assuming this condition to have been present) was not in this case produced by the displacement.

The remaining sign of disease was that the uterus was enlarged. The enlargement of the uterus was slight. It was ascertained in two ways—by bimanual examination and by measuring the distance the sound passed. The canal of the uterus can always be elongated by pulling down the cervix with a hook or volsella, and it is difficult to be certain about slight enlargement of the uterus felt through the abdominal wall by bimanual examination.

Briefly, then, I find no evidence that the uteri of these young virgins which were thoroughly curetted and packed for twenty-four hours with gauze were diseased. The infantile cervix and anteflexion are natural conditions in virgins; the elongation of the canal was produced by traction with the volsella; slight enlargement of the uterus is so difficult to be sure of that its existence in these cases is doubtful, and the microscopic examination of the scrapings showed that there was neither overgrowth nor inflammation. There is no evidence that these virgins were suffering from endometritis.

But you may ask, If these virgins had nothing the matter with the uterus, why did they go to the doctor? Why did they let him curette and pack them? And why did they come back to him and say they were better? The great reason why they went to the doctor was because they had pain. Almost all had pain, almost all suffered pain with menstruation. Most had leucorrhoea. Only a minority had haemorrhage. Now in the cases in which there is undoubtedly overgrowth of adenomatous tissue, and which used to be called "fungous" and "hyperplastic endometritis," there is always haemorrhage but seldom pain.

The author says, "Cases of pure neurosis do not as a rule show the constant symptoms or the association of symptoms that we have described." I know not the exact meaning of the words "pure neurosis" as used by this writer; but I do know that neurasthenia is common among young women in large cities, and is capable of producing all the symptoms which the author describes. These patients appear to have been subjects of neurasthenic, or possibly hysterical, pain. I believe that if they had been simply kept in bed and allowed to eat and sleep, they would have recovered more quickly and thoroughly

than after the anaesthetic, the thorough curetting, and the packing.

There is an interesting therapeutic experiment which has been tried on a large scale for many years. Every year men and women are brought before the metropolitan police magistrates, charged with attempting to commit suicide. An attempt to commit suicide means that the sufferer is in a state of extreme mental depression. The magistrates are experienced and sensible men, and they all treat these cases in the same way. The prisoner is remanded for a week. This means that his liberty is restricted, he has plain but sufficient food, and he has plenty of rest and sleep. The almost invariable result of the week's rest and sleep is that when the week is up the prisoner neither talks of suicide nor again attempts it. The occupation of a bed in a good hospital with sensible nurses is even more comfortable and more conducive to restoration of health than the accommodation that the police can offer.

It may seem presumptuous to make a diagnosis as to patients I have not seen, and to find fault with the diagnosis and treatment of the physician who has seen them. Therefore I emphasize the statement that I accept absolutely the accuracy of the reports of the cases. I base my criticism on the facts as stated in the reports. I find in them (with the few exceptions mentioned) nothing to make me think there was any disease of the uterus. I find in none of them any evidence of endometritis. I think that the person who has curetted and packed so many virgins has made wrong diagnoses, because he was either not acquainted with, or had not present to his mind, the symptoms which may be produced by neurasthenia or hysteria. Curetting the uterus in virgins who have no excessive haemorrhage, but are suffering from neurasthenic pain, is in my judgement an abuse of the curette.

Pain.

The same author has continued his advocacy of curetting and packing in a paper published in 1907; and this paper also shows that neurasthenia is not present to his mind. He says: "Pain or dragging in the iliac region is one of the commonest symptoms in gynaecological practice, and in my opinion in the large majority of cases caused by a heavy uterus." But is it a fact that a heavy uterus causes pain? It is not. In pregnancy the uterus is heavy but it is not painful. A uterus enlarged by fibroids is often much heavier than one which has not undergone complete involution, but, as a rule, does not cause pain. Subinvolution is so common that it has long been correctly taught that increased size of the uterus is one of the evidences of past child-bearing. In women who have had children it is common to find the uterus large; and if the woman is healthy she has no pain. So it is not the fact that a heavy uterus causes pain. The author wishes to explain how the pain is caused; he says, "it is reasonable to suppose that a heavy fundus will pull on the round ligaments." This is not reasonable, for it is contrary to fact. The round ligaments are never tense, unless they have been shortened by the surgeon; and those who have extensively performed any of the various operations by which the round ligaments have been made shorter do not find their patients complain much of the dragging on the round ligaments, although in them the round ligaments have been put in a state of artificial tension. In some of the cases the author states that there was infective inflammation which had spread to the uterine appendages and the pelvic peritoneum. This is surely enough to account for the pain, without invoking the weight of the uterus and traction on ligaments which are never tense.

The adenomatous growths to which long usage may be held to justify the application of the term "endometritis," and genuine inflammation of the endometrium from infection with gonorrhoeal, saprophytic, or septic microbes, are not painful diseases until the inflammation has extended to the peritoneum. Chronic aching pain in the lower abdomen, without increased monthly loss and without physical signs of disease is in nineteen cases out of twenty of neurasthenic origin, and is to be cured by rest, food and sleep, and not by curetting. The author has himself found that curetting does not cure them, for he says that if one curetting does not cure them it must be repeated. I should have thought that the failure was proof that the diagnosis

was wrong, and the curetting not required. This author himself justifies my remarks about the abuse of the curette as a means of imaginary disinfection of the uterus before an operation on the Fallopian tubes, for he says: "Failure does not mean that the endometrium was not primarily at fault, since a certain amount of endometrium *must always* (italics mine) remain behind, and may be the starting point of a fresh endometritis." In other words, what he calls a "thorough curetting" is always an incomplete curetting.

The routine curetting of uteri, in which the only evidence of disease is pelvic pain, is in my judgement an abuse of the curette.

But the local treatment of these cases of iliac pain is not limited to the "thorough curetting." The uterus is packed with sterile gauze for twenty-four hours. This is by some people (not by the writer from whom I have quoted) called "drainage." There is no other department of surgery in which the word "drainage" is applied to such a proceeding. Surgical "drainage" means the keeping open a channel which did not previously exist, which was made by the surgeon, and which would close unless something was done to keep it open. In the patients whose uteri were packed and drained, the uterine canal had been patent ever since they were born, and there was not the slightest danger of its closing. I have not yet read of any aurist proposing to pack and drain the external auditory meatus to relieve headache; but I think this would be as reasonable as packing and draining a healthy uterus to relieve pelvic pain. I may, perhaps, be referred to a posthumous paper by an able man whose death is a loss to medical science—I mean the late Sir Arthur V. Macan—who recommended packing the uterus with iodoform gauze as one therapeutic measure to be adopted in puerperal septicaemia. But he advised this not because he thought it necessary to keep open the uterine canal artificially, but because he thought the iodine given off the drug-impregnated gauze would exert an antiseptic effect upon the uterus. Packing with sterile gauze would be as useless here as it is after curetting.

Chronic Metritis and Endometritis.

Other papers on the subject of so-called chronic metritis and endometritis have recently appeared; and some of these have been discussed at meetings of the Obstetrical Society of London. This lecture is only on a small practical point, namely, "the use and abuse of the curette," and not on the pathology of chronic metritis and endometritis. But as these conditions are often given as reasons for curetting I must refer to them. If you will read the discussions on these papers you will notice (a) that microscopic sections which were exhibited as specimens of disease were to some experienced histologists who looked at them indistinguishable from sections of healthy structures. (b) That it is certain that the endometrium undergoes a monthly cycle of change; but that we do not yet thoroughly know what in the healthy uterus these changes are. Till we know this, it is not possible accurately to interpret slight changes as pathological. (c) These changes, the pathological nature of which is doubtful, are described as due to "infective inflammation"; but the evidence of infection is of the slightest kind, amounting only to the possibility of infection, not even (in the view of some critics) to the probability, and certainly not to the proof. I can see no good reason for curetting in these cases. If they are due to infection, I believe disinfection by the curette to be an impossibility; in most of them there was no haemorrhage caused by overgrowth which might be removed by the curette; and curetting will not cure pain caused by pelvic peritonitis or by neurasthenia.

Recapitulation.

To recapitulate: There are three reasons for using the curette, which, from reading gynaecological literature, and from what I hear from practitioners, seem to me too widely accepted at the present time. These are:

1. Curetting merely because the patient is anaesthetized for some other operation, the curetting being apparently supposed to be in some way beneficial to a healthy uterus.
2. Curetting a uterus which has been infected with pathogenic microbes, with the idea that it is possible to scrape away the whole of the infected tissue.
3. Curetting neurasthenic patients for pain, without excessive haemorrhage, the pain being supposed to be

due to endometritis brought about by variations in the shape and size of the uterus, all these changes never having been shown to be more pathological than variations in the size of the lobule of the ear.

Curetting for such reasons as these seems to me so useless that it deserves to be described as an abuse.

USE.

I now leave the disagreeable part of my subject, and come to the use of the instrument commonly known as the curette. I am glad to see that one of our London instrument makers catalogues it under the name of the curette or scraper. In the rest of this lecture I shall speak English, and tell you not about "curetting," but about scraping.

There are many modifications of the scraper, for many persons like to design their own. They may be broadly divided into three. There are scrapers with a sharp cutting edge. The one used in my professional youth was that of Marion Sims. I have known it cause such considerable haemorrhage that I have not used it or advised its use. I think other people have found the same, for Dr. Gaillard Thomas, a contemporary of Sims, went to the other extreme, and associated with his name a blunt flexible scraper. With this instrument, if it be clean, it is scarcely possible to do damage. But it seems to me equally impossible for the operator to know what he is doing, for if the instrument meets any resistance it bends; for this reason I think it not a good instrument. I prefer a rigid blunt scraper. This does not cause excessive bleeding, and with it the operator can tell whereabouts the end of the instrument is and what force he is using.

The use of the scraper is to remove new growths, either as a treatment or for diagnosis. In any case of haemorrhage which is enough to weaken the patient, and in which nothing to account for it can be perceived by bimanual examination, the proper treatment is to dilate the cervix and explore with the finger the uterine cavity. If no growth is felt such as can be grasped with a forceps and removed, the proper course is to scrape the endometrium, and have the scrapings afterwards examined with the microscope. The haemorrhage may be due to overgrowth, the structure being that of the healthy endometrium just before menstruation, except that it is thicker, and comes away in thick, soft, gelatinous-looking flakes when the interior of the uterus is scraped. Sometimes pieces are detached by the pressure of the exploring finger before any scraping is done. This has long been known as "hyperplastic endometritis," although there is no evidence, either clinical or histological, of inflammation. The morbid change is an adenomatous growth. We have no information that I know of as to the monthly cycle of change in such an overgrown endometrium; but the guess that I should make is that it is broken up and expelled when the haemorrhage from the uterus (which is often too frequent to be called menstruation) takes place, just as a healthy endometrium is broken up with a normal menstruation. Therefore, in a patient who has been suffering from excessive bleeding from the uterus, I should not think the curetting uncalled for and not likely to do good if the shreds of membrane brought away were not very thick. Sometimes there is a small polypus or several polypi in the uterine cavity. This has been called "fungous," or "villous," or "polypoid" endometritis, although these little growths when examined microscopically may show no sign of inflammation—nothing but healthy gland tissue.

This disease is not common. It occurs mostly in women who are near the climacteric age, and in such patients one scraping may stop the haemorrhage and cure the patient. I have seen it in a young woman whose uterus had been scraped by different gynaecologists several times, the disease recurring within a few months after each scraping. The stuff scraped away half filled a wineglass. Were I to see such a case now, I should advise hysterectomy rather than repeated scrapings. But at the date of my seeing this patient hysterectomy was accompanied with greater danger than it is now; and that is why each gynaecologist who saw the young lady advised repetition of the scraping rather than removal of the uterus.

I have already given my reasons for thinking that it is not possible to scrape away the whole of the endometrium. But if a swab saturated with fluid is pressed well into the uterine cavity I think it possible that the fluid pressed out may reach every recess. I have used for this purpose nitric acid, as recommended by Dr. Lombe Atthill. This is a strong caustic; I have heard of atresia following its use, and I have not found it invariably successful. I have used strong carbolic acid, but if any of this overflows on to the vulva it may make the patient smart for hours. I have used tincture of hamamelis, which is harmless, and iodine liniment, which is antiseptic. I doubt if any caustic will prevent the recurrence of adenomatous growth. But swabbing the uterine cavity with liniment or tincture of iodine is a harmless antiseptic precaution.

If the patient is over 40, and after scraping the haemorrhage and leucorrhoea return, and the loss of blood is so great as to make the patient visibly anaemic, I think removal of the uterus is better than repeated scraping, even if the report upon the scrapings is that there is no sign of malignant disease. There are two reasons for advising this course. (1) At this age pregnancy is so improbable that the uterus may be regarded as a useless organ, which has done its work, and if the only thing it does is to keep the patient anaemic, she is better without it. (2) In some cases the line between healthy tissue and malignant disease is hard to draw. Cases have been reported in which the scrapings showed only healthy gland tissue, and yet the disease quickly recurred.

A case was reported many years ago in which in an old woman the symptoms and course of the illness were those of malignant disease. The uterus was examined after death by men who, although competent general pathologists, yet had no special acquaintance with the histology of the uterus. They could find no sign of cancer in it, either with the unaided senses or with the microscope. I think it possible that if that uterus could to-day be put before the Pathological Committee of the Obstetrical and Gynaecological Section of the Royal Society of Medicine their report might be different. I refer to the case to show how difficult the histological diagnosis sometimes is.

A late eminent surgeon at one time—I know not whether he was so satisfied with the practice as to continue it—used to destroy the bleeding endometrium with the actual cautery. A distinguished Russian surgeon has constructed an apparatus for scalding the inside of the uterus with steam. This has the advantage that no corner of the uterus can escape the steam, which sterilizes and destroys. Those who make it their business to study obstetrical literature have been acquainted with this instrument for at least a dozen years; but it seems not to have found favour in this country, for it is not contained in the catalogues of most of our surgical instrument makers.

Scalding or steaming the uterus is a severe measure as compared with scraping. But it is not fair so to compare it. It should be compared with hysterectomy. In women who are approaching the menopause, who have recurrent bleedings which make them anaemic and scraping has failed, most gynaecologists would consider whether they should not recommend hysterectomy. Here the use of steam comes as an alternative. The heat destroys and sterilizes every bit of the endometrium, and the operation takes far less time and is devoid of some of the dangers of hysterectomy. It is possible by scalding to thoroughly destroy an endometrium in which malignant growth has begun. Unfortunately the destruction may go too far, for pelvic cellulitis and, later, atresia of the cervical canal have been known to follow it; and haemorrhage has been known to recur.

In a few cases of malignant disease of the body of the uterus the finger does not detect any friable new growth; but the scraper detaches bits which, when examined microscopically, show unmistakable signs of cancer. These are few. In most cases of cancer of the body, when the cervix is dilated and the finger put into the uterine cavity, new growth is felt which breaks down under the finger and bleeds. Friability is the surest macroscopic test of cancer.

The scraper is useful in some illnesses following pregnancy. You may be called upon to treat a patient for haemorrhage which is so great as to make the patient pale, and which is due to abortion. The abortion may

not yet have taken place, but be inevitable; this being evident by the fact that the cervical canal is dilated and the ovum protruding into it. It may be incomplete; that is, the membranes have ruptured, the embryo has been expelled, but the whole or part of the membranes remain *in utero*. It may have been complete; but if the patient has lost blood, you cannot tell whether the uterus is empty or not without exploring it. Before the beneficent discoveries of Lord Lister it was known that most abortions were spontaneously completed; and it was regarded as bad practice to interfere with the natural process, because such interference, when the operator's fingers were not surgically clean, was occasionally followed by grave illness. Such illness we now know can be prevented by the use of antiseptics. In those days the risk of death from blood poisoning when dirty fingers or instruments were put into the uterus was greater than the risk of death from haemorrhage accompanying abortion. But now the risk of blood poisoning no longer exists for those who will learn from Lord Lister; we have to recognize that the mere fact of abortion implies that there is something abnormal, and that there are risks resulting from great bleeding. So long as the chorion or placenta is everywhere in close vascular connexion with the uterus, there is no haemorrhage. But when the chorion has been partly detached, bleeding usually continues until it has been entirely detached and expelled. In most cases we do not know why it has become detached; but in some there has been no doubt that it has been because the decidua has been unhealthy. If there is a mass presenting at the os internum, whether the ovum, or what has been given the name of "placental polypus," that is a bit of chorion with adherent blood clot, it should be grasped with forceps and removed. You are sometimes told that it should be removed with the finger. It may sometimes be detached with a finger, and then squeezed out by bimanual compression of the uterus. To detach the chorion with one finger may be difficult if it is firmly attached high up, but to extract it with one finger is beyond my digital skill. After the main mass of chorion has been removed there remains the decidua, which will in any case have to disintegrate and be discharged, and which, from the fact of abortion having taken place, is likely to be unhealthy. I think it good practice, after removing an aborted ovum or its membranes, to scrape away the decidua as completely as possible. If this is done, I believe that haemorrhage and discharge cease sooner than if it is not done.

There are certain unusual cases which are on the borderland between health and disease. Sometimes a young woman marries, but instead of pregnancy following the menstrual loss becomes increased. There may or may not be menstrual pain. The increased haemorrhage indicates overgrowth of the endometrium from increased efflux of blood to the pelvic organs. The effect of dilatation of the cervix in curing sterility has long been known. In these cases, in which sterility and increased menstrual haemorrhage occur, I think it good practice after dilating the cervix to scrape away as much as possible of the endometrium. The condition is much like that of the so-called "hyperplastic endometritis" only in a slight degree.

The scraper is useful in some cases of puerperal illness. Koch showed us the difference between sapraemia and septicaemia. Sapraemia, often spoken of by the longer name of "septic intoxication," means fever caused by a chemical poison produced by micro-organisms growing in dead matter. Sometimes the dead tissue is only lochial discharge retained in the uterus, to which saprophytes have in some unusual way gained access. Bacteriologists tell us that while microbes of many kinds abound in the vagina there are usually none in the body of the uterus. In a properly conducted natural labour nothing from outside is put into the uterus, and therefore its interior remains sterile. It is not common for retained lochia to be the only source of the poison; but it sometimes is so, and then the patient is cured in a few hours by washing out the uterus with an antiseptic. The most common way in which sapraemia occurs is when a bit of chorion is left attached to the body of the uterus and hanging down through the cervix into the vagina. Saprophytes in the vagina then get access to the bit of chorion, make it putrid, and the poison from the putrid tissue makes the patient ill. In these cases washing out the uterus is not enough. It may make the patient better for a little while,

but if the bit of dead chorion is left behind fresh poison will be produced, and the symptoms will return. To cure the patient it is necessary that the dead tissue should be removed, and scraping out the uterus is one way of doing this. It is not always the best way, for if the piece of chorion is large it can be better removed by grasping it with forceps constructed to hold. (The so-called "ovum forceps" is useless; it will not hold anything.) When the big mass has been removed then the uterus can be scraped to detach smaller bits and the cleansing process completed by washing out the uterus with a germicide solution. If the case is only one of sapraemia this will cure the patient.

Scraping the uterus is not a remedy for pain. The writer who thinks endometritis so common in virgins has found that this is so, for he says: "For really bad cases in which there is prolonged haemorrhage which repeated curettings have failed to cure, there is a general agreement that vaginal hysterectomy is justifiable. For my part, I think the operation ought to be extended to some cases in which haemorrhage is not a very important feature. There are a good many women whose lives are rendered miserable by chronic metritis at a time when they ought to be most active. If in a case of this sort the uterus is found to be much enlarged and very hard, and everything points to its being functionally useless, and *no improvement is brought about by repeated curetting* (italics mine), it ought to be removed." My experience agrees with that of this author, that scraping does not relieve pain. But I hold the opinion, which he does not express, that repeated scrapings, after one scraping has failed to relieve pain, is bad practice, and deserves to be called an "abuse of the curette." The use of the scraper is to detach something that is causing trouble, not to relieve pain.

Remarks

ON

PREGNANCY COMPLICATED BY FIBROMYOMATA OF THE UTERUS.

A RECORD OF TEN CASES TREATED BY LAPAROTOMY*

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By a happy provision of Nature uterine fibromyomata of sufficient import to give rise to symptoms *per se* are but seldom associated with pregnancy, for there can be no reasonable doubt that their coincidence forms a most serious menace to life.

Curiously, there is a small faction of writers on the subject who look upon fibroids as due to sterility and not as its cause, and who must put, therefore, a large premium on marriage. Statistics and practical experience do not, to my mind, support this contention. From the records of the Edinburgh Royal Infirmary it appears that in 100 cases of fibromyomata 37 were single and 63 married; 32 of the married were childless—50 per cent.—a very striking proportion when compared with the general ratio of sterility—namely, 10 per cent.

My own experience entirely coincides with these figures. Out of 290 cases of uterine fibromyomata upon which I thought it necessary to perform hysterectomy before the climacteric, 111 were unmarried and 179 married; of the latter 82 had no children and 97 had among them 222 children. Thirty-one of these had but 1 child each, and the largest family of any was 6. The most outstanding feature, however, was the relative sterility, the youngest child averaging 7 years in those who were not widows; the age of the mothers averaged 41. It would thus appear that women, the victims of small fibroids, frequently become pregnant; this, however, acts materially on the tumour in the majority of cases by permanently increasing its growth, so that it tends to prevent future pregnancy, with a resulting relative sterility.

From these statistics one may legitimately form the conclusions—

1. That fibroids occur equally in married and unmarried.
2. That they predispose to sterility.
3. That pregnancy, should it occur, excites the growth of the tumour, and thus predisposes to subsequent sterility.

As is well known, fibroids of pathological import, from their site or size, are occasionally associated with pregnancy, but the complication is much less frequent than is supposed. On consulting the case-books of the Edinburgh Maternity Hospital, and those of Ward 35 in the Royal Infirmary, their rarity must be conceded, as in the former I find but seven cases in ten years out of over 4,000 cases, while during the same period in the latter's records only five cases are mentioned.

From these statistics it may be contended that the coincidence is so trivial as to in the former give rise to no difficulty, and in the latter to warrant no advice being sought. This, from experience, I cannot endorse, for during my tenure of office in the Maternity Hospital I have on but three occasions seen fibromyomata larger than a cocoonut; in one of these cases Caesarean section had to be performed, while another died from eclampsia.

The smaller fibroids, of which I have seen several, were of the innocuous subserous variety, comparable to warts, which gave rise to no symptoms, before, during, or immediately after pregnancy.

The mere presence of a fibromyoma in the wall of a pregnant uterus cannot be considered a serious complication, but when it is large enough or placed in such a position as to give rise to symptoms of sufficient gravity to warrant the woman seeking advice in the unimpregnated state, there is no doubt in my mind that the coincidence of pregnancy (which is fortunately rare) is undesirable, as it forms a very grave complication. One must clearly distinguish, then, between the occurrence of pregnancy with innocuous fibroids, and its occurrence with those which in themselves have given rise to signs and symptoms sufficient to attract notice.

The dangers of the latter may be tabulated as follows:

1. Pressure from their position or size.
2. Degenerations during pregnancy or after labour.
3. Interference with pregnancy and labour.
4. Haemorrhage during or after expulsion of uterine contents.
5. Secondary post-partum haemorrhage.
6. Readiness to serious septic infection after imperfect expulsion of ovum.

I have had experience of all these complications, but it is my intention to restrict myself to the discussion of 10 cases in which I felt it incumbent to perform laparotomy. They are as follows:

CASE I.

Mrs. R., aged 35, primipara, after three months' amenorrhoea, complained of very severe intermittent pain and sickness, which had been present for over a fortnight. On examination the uterus was found to reach almost as high as the umbilicus and was unequal in consistence. As the result of sleeplessness and want of nourishment, she was becoming very exhausted, and as her temperature rose nightly to between 101° and 102° F., I decided to remove the tumour, which I attempted; as, however, it was so intimately connected with the uterus and the bleeding on enucleation was so profuse, I decided to perform supravaginal hysterectomy.

CASE II.

Mrs. S., aged 35, after six months' amenorrhoea, complained of retention of urine and pain and swelling of lower limbs. On examination the pelvis was found to be filled by a large fibroid, which pushed the uterus up into the abdomen and rendered the cervix difficult to reach high above the pubis. I performed laparotomy, and, having found the pelvic swelling to be an incarcerated subperitoneal fibroid with a comparatively small attachment to the uterus, I removed it easily by transfixing the pedicle and subsequently stitching over the stump with Lembert sutures. The pregnancy continued to full time and ended in a natural delivery.

CASE III.

Mrs. D., para, last living child 7 years old, two miscarriages, complained, after six months' amenorrhoea, of a large and rapidly increasing abdominal swelling. For the previous week she had had severe intermittent pains and considerable haemorrhage, and was much exhausted. A large tender, multinodular abdominal swelling could be felt. I opened the abdomen and performed panhysterectomy. The uterus and tumour weighed 18 lb. The former showed a dilated cervix and much attenuated. L.U.S. labour was well advanced, but expulsion of the ovum impossible.

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