NOTES

ON

LACERATION OF THE CERVIX UTERI; ITS CAUSES AND TREATMENT.*

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MY object in bringing forward the subject which forms the title of the present communication is principally to initiate a discussion, to learn myself from others. The presence of so many illustrious obstetricians, representing many nationalities and many schools, affords an admirable opportunity of obtaining an authoritative expression of opinion as to the etiology and treatment of this lesion. New views respecting the causes and treatment of laceration of the cervix uteri have been brought forward of late years by eminent American and German gynaecologists, and promulgated by them with great enthusiasm and authority. As the time allotted is very limited, I intend to confine myself principally to the enunciation of my own opinions, founded on a long life of clinical observation: and I may thus early state that these opinions are decidedly antagonistic to what I may term the recent American doctrines. At the same time, I wish it to be well understood that I feel the greatest esteem and respect for the talented gynaecologists whose opinions I combat.

These doctrines, the principal exponents of which are Dr. Emmet (*Principles of Gynecology*), and Dr. Pallen of New York, may be reproduced in a few words. Dr. Pallen, it may be remarked, is much more exaggerated in his views than Dr. Emmet. He states that he has operated in 500 cases.

Firstly, it is said that laceration of the cervix, as an accident connected with parturition, is very common; indeed, so common, that it was found by Dr. Pallen, at the Gynaecological Clinic of the University Medical College of New York, in more than 200 cases out of 900 patients there treated.

Secondly, it is laid down as an axiom that these lacerations, as such—as mere lacerations—are a most fertile cause of uterine disease, of hypertrophy, defective involution, displacements, leucorrhoea, sterility, etc.; that they are also a frequent cause of *post partum* hæmorrhage, of septicæmia, of metritis, and of puerperal fever; and that the proper, and the only proper, treatment is a plastic surgical operation, viz., sewing up the lips of the laceration.

It is laid down as a rule by Dr. Pallen, in his memoir read before the British Medical Association at Cambridge, 1880 (*BRITISH MEDICAL JOURNAL*, May 14th and May 21st, 1881), that the sooner the plastic operation is performed after parturition, the better it is for the patient, as with laceration of the perinæum. In this memoir, the following axioms are laid down peremptorily by Dr. Pallen: that the operation can and should be performed as soon as discovered, immediately after parturition, or within a few days after parturition; that all parturient women should be examined immediately after childbirth, with a view to ascertain if laceration have occurred; and that every accoucheur ought to acquire the surgical skill necessary to perform the operation, and ought to go to every confinement with the instruments required for its performance, prepared to use them in case of need.

I believe that the above pathological doctrines, in so far as they relate to the frequency of laceration of the cervix uteri in labour, are the expression of facts; and American gynaecologists deserve great credit for bringing them so authoritatively before the profession. By drawing attention generally to the frequency of laceration of the cervix in labour, they have done good service to the cause of gynaecology, and have succeeded where I partially failed.

I believe that I was the first to forcibly direct attention to the frequency of laceration of the cervix during childbirth, as a cause and as a complication of subsequent uterine suffering. I would refer to the second edition of my work on uterine inflammation, published in 1849, thirty-two years ago, pp. 225 and 352.

In this, the second edition, after discussing the subject generally (page 225), in speaking of the diagnosis of cancer of the uterus in its early stage (page 352), I make the following statement: "The cervix

is, in reality, frequently lacerated; and, if Dr. Ashwell has not observed this to be the case (see page 433 of his work), it must be that, on the one hand, he has not analysed with sufficient care the results furnished by digital and instrumental examination; and that, on the other, he has mistaken for incipient cancer the cases in which the lacerations, not having healed, have led to a puckered indurated state of the edges of the os. When laceration occurs in labour, if the parts involved do not return to a healthy state, but remain ulcerated and inflamed, lobes are formed around the os, separated from one another by fissures more or less deep. These lobes, although merely inflamed, may become of a stony hardness; and, when this occurs, the hardness is very erroneously supposed to characterise scirrhus, and is cited as an evidence of the malignant nature of the disease. If the lobes thus formed around the os, and thus indurated, are considerably hypertrophied, they present exactly the sensation to the touch which Dr. Montgomery compares to the ends of the fingers brought closely together, and which he considers to characterise the second stage of cancer."

In the third edition of my work, published in 1852 (pp. 185 to 470), and in the fourth, published in 1861, I confirmed and extended what I had previously stated on this important subject. Thus, during a long gynaecological life, I have recognised the frequency of laceration of the cervix uteri, and its importance in the etiology and treatment of many forms of uterine disease. I have described it in my writings, taught it to my pupils, and have treated it in practice. I consider myself entitled, therefore, to speak on the subject with some little authority.

Although accepting, in a measure, the facts and the etiology of cervical laceration as brought forward by our American brethren, I join issue with them entirely as to the general advisability, nay, general necessity, of the surgical operation they so warmly advocate as a rule for all cases, slight or severe.

Referring to the causes of laceration of the cervix, I quite agree that instrumental or manual interference, during or after parturition, laborious prolonged labour, or abnormally rapid labour, may give rise to cervical laceration, as stated in the successive editions of my work. I believe, however, that, in the immense proportion of cases, the lesion is due to previous disease, to rigidity of the cervical tissues, the result of previous chronic inflammation, which nature has been unable to modify, to soften during the later periods of pregnancy.

In a very early stage of my obstetric career, I became convinced that much that is to be found in standard works on obstetrics respecting rigidity of the cervix during labour, was founded on ignorance of the pathological changes produced in the cervix by chronic inflammation. I became convinced that the so-called spasmodic rigidity of the cervix during labour, about which so much has been written, was all but invariably the mere result of previous inflammatory induration.

I arrived at this conclusion in a very simple way. I made it a rule—and a very good rule it is, productive of sound practical results—to examine instrumentally, six weeks or two months after parturition, all the women I attended who had presented during the labour either rigidity of the cervix, or hæmorrhage, or had experienced any accidents whatever during that or the *post partum* period, or even during pregnancy. I followed this rule in such cases with my public as well as my private patients, requesting them to come to me six weeks after their confinement, that I might ascertain "if all was right". I never met with any difficulty either in public or in private practice, once I clearly explained the reason for my demand, viz., the fear that all might not have gone right during the confinement.

In cases of rigidity of the cervix, and of delayed labour from that cause, I all but invariably found diseased conditions of the cervix, hypertrophy, induration, the evident origin of the cervical rigidity, generally accompanied by inflammatory lesions, such as erosion or ulceration, evidently of old origin, long antecedent to the labour. Often these lesions were accompanied by lacerations, clearly the result of the induration existing at the time of the labour.

I may again mention what I stated in a paper read before the British Medical Association at Cambridge last year (1880). When in these examinations, made six weeks or two months after the confinement, I met with inflammatory lesions, uterine or cervical, generally speaking the pregnancy had been a laborious one. It had been chequered by extreme sickness or hæmorrhage, and, in most instances, parturition and the *post partum* period had been abnormal in various other ways.

One of the most prominent and frequent pathological conditions observed under these conditions was laceration of the cervix uteri, more or less extensive, mostly single, sometimes double or multiple. So frequently did I meet with it under these circumstances, especially when there had been rigidity of the os uteri during labour, that by degrees I came to connect the two as cause and effect. Nature prepares the cervix, during the last months of gestation, for the phenomena of parturition, by change of structure. When the time arrives

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the structure of the cervix uteri is so modified that it dilates and opens as readily as the healthy sphincter ani. But, given a cervix diseased, hypertrophied, indurated by chronic inflammatory action, unsoftened, structurally dense and hard, it is self-evident that its normal dilatation will be impeded, and that laceration must often occur.

Such being the sequence of events in the immense majority of cases of laceration of the cervix met with in practice, nothing can be more erroneous, clinically, than to attribute, as a rule, the inflammations, the indurations, the erosions, the ulcerations, subsequently discovered, to the mere laceration. To present these lesions in this light is, in most cases, to substitute effect for cause. I repeat, the morbid conditions found accompanying laceration are not, in the great majority of instances, the result of the laceration, or caused by it, but are the natural inevitable result of the previously existing chronic disease of an inflammatory character which led to—caused—the laceration.

I quite admit, however, that laceration of the cervix uteri during labour, in a healthy female, from instrumental or manual interference, or from any other cause, may be followed by all these morbid conditions—may produce them—if the woman be out of health, and if the case be indefinitely neglected.

In my experience, however, these are the exceptional cases. The reparative, healing, curative energies of nature are so great after parturition, nature has such power to restore the uterine organs to a normal healthy state during the puerperal stage, that most lesions which occur in healthy women during labour are no doubt spontaneously cured. As I have already stated, it is principally the women who present uterine or cervical disease at the time of parturition, who do not recover spontaneously from accidental lesions. No doubt very many healthy child-bearing women, who are perfectly well, and have never been examined, because they present no morbid symptoms, would be found to show the traces of laceration of the cervix spontaneously healed, were they examined instrumentally. If the cervix be actually the seat of chronic disease at the time of the laceration, on the contrary, the local disease, aggravated by the labour, perpetuates itself in spite of the curative, restorative efforts of nature, and draws attention to its existence by the usual symptoms.

Thus, clinically, we have to deal with laceration of the cervix uteri under three different conditions. 1. In connection with severe chronic disease of the cervix of an undoubted inflammatory character—hypertrophy, induration, ulceration, the fissure is deep; its edges, unhealed, are sometimes hard, hypertrophied, and capable of being everted by the bivalve speculum. Such a case bears every anatomical evidence of being the result of old disease existing at the epoch of one or more antecedent labours. 2. There may be one or more clean fissures, with unhealed edges, and accompanied by decided inflammatory lesions and tissue-changes, enlargement of the cervix, soft or hard, erosion, ulceration of the cervical mucous membrane, etc. These pathological conditions are decided; but the hypertrophied, lobulated condition of the cervix is not as marked as in the former class of cases; its chronicity is evidently not so great. The parturition which occasioned the laceration may not have been remote, and it is much easier to obtain a cure. 3. There may be a clean-cut fissure or fissures unhealed, but not accompanied by the above-described pathological conditions. The fissure is probably the result of recent parturition in a healthy or tolerably healthy female, and is generally easy to heal by very simple means.

We are thus led to the consideration of treatment. The distinguished American gynaecologists whom I have named, have stated in their writings that all these lacerations ought to be operated on surgically; to be sewed up by a delicate, difficult plastic operation, either immediately after parturition or whenever discovered. This operation is proposed as a surgical necessity; as the only means of avoiding the whole train of uterine lesions and sufferings with which we are so familiar—menorrhagia, dysmenorrhoea, neuralgia, chronic inflammatory lesions, non-involution of the uterus, displacements, sterility, etc. Nay, the origin and cause of all these morbid states in child-bearing women, and their permanency, seem to be principally attributed to the laceration, when such a lesion exists.

To this doctrine we may answer: What, then, is the cause of these morbid states in the still more numerous cases in which they exist in child-bearing women, with equal intensity, without any laceration whatever having occurred? To me, this attempt to establish a kind of new uterine pathology, founded on laceration of the cervix, is quite visionary. That such lacerations, unhealed by nature, after childbirth, constitute an important and unfavourable complication, aggravate all the local and constitutional symptoms, and render recovery, when unhealed, difficult, if not impossible, is true, perfectly true. But there is an abyss between admitting these pathological statements to be true, to be undeniable facts, and attributing to the existence of the laceration

itself all the lesions and symptoms which accompany it, and asserting that a surgical plastic operation can alone cure the fissure and restore the patient to health.

I do not hesitate to say that this operation, although admissible possibly in extreme cases, is unnecessary in a very large proportion, I may even say in nearly all, the cases for which it is thus recommended. I have lived amongst these cases all my professional life, for more than forty years, and have treated many hundreds, to say the least. Not having kept a register, however, I am unable to say how many I have attended, or what proportion the cases of uterine disease with laceration of the cervix I have seen and treated bear to those without. I have always succeeded in healing the laceration, and in curing the morbid conditions that accompanied it, more or less readily, according to the case, by simple surgical means and appliances, without having recourse to the plastic operation introduced of late years. I always considered the laceration to be part and parcel of the inflammatory disease that coexisted—either its sequela or its cause. As the concomitant inflammation of the cervix and uterus of the surrounding tissues improves, the raw edges of the laceration begin to heal. As the hypertrophy and induration of the cervix softens and diminishes, so do the hypertrophied lips of the laceration soften and diminish. When the cervix regains its natural size and texture, and all erosions and ulcerations have healed, the deep gaping rent, fissure, or laceration, heals and disappears; a mere notch only, in most instances, remaining.

In some cases, if the laceration have been very deep, if the cervix had been very much enlarged and indurated, and remain so notwithstanding local treatment and careful constitutional management, the healed fissure or fissures may remain deep and patent, and permanently divide the cervix into lobes. I am quite prepared to admit that in such cases the operation may be admissible, or even the best treatment to adopt. In my early life, these cases were generally thought to be cancerous, and I was the first to point out their non-cancerous nature, and to demonstrate that the direction of the fissures, radiating from a centre, like the spokes of a wheel, constitutes a good differential character (see page 349 *et seq.* of my work, second edition, 1849). It was principally in these obstinate and intractable cases that I used, and still occasionally use, issues made with my cylinders of potassa cum calce. I never, in any of my writings, proposed or suggested melting down diseased tissues by potassa fusa, as I have been most unjustly reproached for doing.

I do not assert that this new plastic operation ought never to be performed in any conceivable case. I make no such a sweeping assertion. I admit that possibly, in extreme cases, the plastic operation may be the best treatment to be adopted. That is a question which I leave others, younger men, to decide. I do, however, assert that, in a long gynaecological career, with my eyes thoroughly open to the pathology of laceration of the cervix uteri, I have successfully treated my patients by other and milder means, all but uniformly restoring them to health. I would add, that I do not see the rational application of this operation in the great majority of cases, inasmuch as all the improvement said to follow the operation may be obtained by simply curing the concomitant inflammation, and by healing the divided lips of the laceration, as already stated. I have cured an infinite number of women suffering from laceration, and from its antecedent, concomitant, and subsequent complications, by the means of treatment usually resorted to before the autoplasmic operation was proposed.

In my own practice, I have simultaneously treated the local lesions and the constitutional symptoms: the latter by rest, hygiene, and general medicinal agencies; the former by the surgical means that are usually resorted to in the practice of surgery to remove chronic disease of attainable mucous membranes, such as those of the anus, vulva, fauces, nares, mouth, etc.; these agencies are emollients, and local depletion, astringents, and vitality-modifying agents, such as iodine, the nitrate of silver, and the mineral acids. To treat disease of the attainable regions of the uterus on these principles, is merely to apply to disease in these parts the universally recognised laws of surgical practice, varied according to the case, and according to individual experience and views.

To deny the existence of inflammation, acute or chronic, in the uterine and cervical mucous membranes and tissues, and to repudiate the use of the usual surgical therapeutics, is irrational and unscientific.

I still teach the doctrines I have always taught in uterine therapeutics: thoroughly examine your patient; treat and remove by ordinary surgical means all removable lesions, all pathological conditions; treat at the same time most carefully all constitutional failings and symptoms; and then wait, handing over the case to rest, to hygiene, and to time. With their assistance, nature will complete the cure, in the great majority of cases, without surgical operations of one kind or

another. In the cases to which Dr. Emmet alludes, in which the laceration extends to the bladder, producing vesico-vaginal fistula, or into the cellular tissue behind the uterus, giving rise to cellulitis, I quite agree that more active surgical interference may be absolutely required.

There is a feature connected with the new plastic operation for laceration of the cervix to which I would draw attention. Many gynaecologists, both European and American—among whom stand prominently the late Sir James Simpson, and my old friend, Dr. Marion Sims—have recommended, during the last twenty years or more, deep division of the cervix, with scissors and bistoury, by a single or double incision, down to its connection with the body of the uterus, for nearly every form of uterine suffering: sterility, displacements, hypertrophy, etc. For my own part, I never could understand the *rationale* of these operations, and never performed them; my patients recovering without. Now, singular to relate, we have a new school of gynaecology brought forward, which teaches us that spontaneous lacerations, the very anatomical conditions thus artificially induced to cure disease, are the actual cause, when they exist, of uterine suffering in child-bearing women; and that, by sewing up the lips of the laceration, the patient is to be cured, and made well for ever more.

These extreme surgical doctrines refute each other. None of the gynaecologists, who recommend and practise slitting up the cervix, as a remedy for uterine suffering, have found that their operation leads to laceration of the uterus during subsequent labour, or to any other evil consequence. On the contrary, they assert that the operation is a perfectly innocent one in its results, and attribute marvellous curative powers to the division of the circular fibres of the cervix.

How is it possible that such very different views can prevail, that they can both find enthusiastic followers and supporters? I think that the explanation may be found in the surgical character of the remedies proposed and carried out. In hospital practice, when a patient is operated on, as soon as the wound is healed, she is dismissed, and the case is registered as a cure, quite irrespective of what follows months or years later. It was so with my own public practice in early life. Private practice, however, soon proved to me how much we are apt to be misled by the first apparent results of surgical treatment in public institutions. When I was called upon to follow up my own treatment, or that of others, for months or years in private life, I found that I had much overestimated the value of operations on the uterus; that the radical permanent changes I had anticipated did not take place in private practice. The gynaecological celebrity appears, performs the operation, and then generally disappears—thinking, most conscientiously, that he has cured the case. But the family attendant, into whose hands the patient falls, gradually finds out that the health has been but little, if at all, modified by the operation resorted to.

In many instances, both these operations—the deep division of the cervix, and the sewing up of spontaneous lacerations—proposed and carried out in order to radically cure uterine suffering of varied character, ignore an important fact, which I pointed out many years ago. There is a class, a tribe, of women, perhaps not otherwise defective in constitution, who seem born to suffer from the uterus and the ovaries from the dawn of menstruation until its close, in some way or other. In them, there is a constitutional element—gouty, rheumatic, scrofulous, anæmic, or neuralgic—which seems to concentrate itself on the uterine organs and functions. These females often illustrate in their own persons, in succession, all the phases and forms of uterine pathology. No treatment, no operation, can or will change their nature, and enable them to pass through their uterine life entirely without suffering. Yet this is their constant aim. They attribute to us much more power to modify their condition than we really possess, and are ready to adopt any new practice, any new operation; often thinking they are better at first, whatever is done. The real therapeutic value, therefore, of any uterine operation performed, of any means of treatment used, can only be really recognised in such constitutions long after the operation; years or more.

According to my experience, all we can really do with such constitutional sufferers is, to cure curable disease, wherever and whenever it comes; to regulate the constitutional condition; the general health; and thus to lead up to the menopause, avoiding, when possible, all severe surgical measures. The menopause attained, these women may really become healthy old women, in accordance with the popular belief. All the slitting up of the cervix, all the sewing up of lacerations, all the numerous pessaries invented, fail to change their constitution. Their organisation being defective as regards the uterine organs and functions, they have to bear a more or less severe amount of uterine suffering, with its morbid sympathetic reactions, as long as uterine life lasts. Young physicians do not know this fact, and aim often at impossible results.

In such cases, if extreme, the new operation for the ablation of the

ovaries—castration, as it has been proposed to call it—might be seriously entertained. The favourable change produced by the cessation of ovulation might thus be attained long before its natural advent. But, are we justified in endangering life to remedy (possibly) mere invalidism, even if the patient consents, or wishes it? This is a question which the profession will have to decide. I am not called upon to discuss it here.

Dr. Emmet, in his work, says that those who differ with him, who reject his views with regard to his plastic operation, will be found amongst those who, from advanced or advancing age, have become incapable of receiving new ideas—have become, in a word, scientifically fossilised. I presume he will think that I belong to this class, for there are many years behind me now. I trust, however, gentlemen, that such will not be your verdict, and that you will accept this essay in the sense in which it has been written, as an exposition of my own experience and practice, as a protest against exaggerated views, and not as a protest against recent improvements in uterine surgery. Viewed in this light, it may be an element in weighing the value of the recently promulgated doctrines respecting the surgical treatment of laceration of the cervix.

In the earlier period of my gynaecological career, which commenced more than forty years ago, I had to claim, during many years, from an unwilling profession, the recognition of the right to treat the uterine organs surgically. Success crowned my efforts. Gradually the right, so long denied, to examine and treat the uterine organs just as we examine and treat all other accessible organs, was conceded. Gynaecology has, since then, progressed rapidly, and has become an important part of surgery.

I must, however, be allowed to add that the movement has gone further than I, individually, wished or approve. In my opinion, of late years, gynaecology has become unreasonably surgical in the hands of some eminent practitioners. I believe that they demand more from decided, severe, surgical modes of treatment than such treatment can give, in the sense of removing entirely suffering in the uterine organs and functions. Thence this protest as regards the plastic treatment of laceration of the cervix. At the same time, I again repeat that I by no means object to or repudiate Dr. Emmet's operation in extreme well-selected cases, leaving it to the younger gynaecologists of the day to decide when it should be performed as an exceptional operation. No man can be more anxious than myself to see science in general, and gynaecology in particular, progress. I am still, I believe, ready to accept new views and new doctrines, provided they are founded on facts, and not on blind enthusiasm.

It would, indeed, be a sad illustration of the tendency of the human mind, were I unwilling, in advancing life, to give to others the sanction I so pertinaciously and so successfully claimed in my youth in the same field of pathology and therapeutics.

ON BETHESDA WATER IN THE TREATMENT OF DIABETES MELLITUS.

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A FEW months ago, my attention was directed by Dr. Harvey J. Philpot to Bethesda water as a remedy for diabetes; and, a supply having been placed at my disposal by the Bethesda Water Company, I determined to give it a trial. It appears that this antidiabetic mineral water has been used in America for several years with great success. The spring was discovered by chance in Wisconsin, and so quickly attained a reputation for the cure of diabetes, that a large hotel—said now to be the largest in the world—was erected for the accommodation of the crowds of visitors who flocked thither to drink the waters. The patient is directed to take from eight to ten tumblersful daily for ten days, and then half the quantity for the next fifteen, thirty, or sixty days. An analysis of the water shows that it contains seventeen grains of carbonate of lime and twelve grains of carbonate of magnesia to the gallon, besides chloride of sodium, sulphate of potash, alumina, and silica. The gaseous constituents appear not to have been estimated. Several remarkable cases are mentioned, some of the patients being well-known public men in America; but the reports are wanting in scientific accuracy.

My own experience is confined to a single case of diabetes mellitus. The patient was a young man aged 20. He was unable to give us any information about his parents or relatives. He had spent the greater part of his life working in a coal-mine; but for the last two years he had been a farm-labourer. He was well and strong until about a year ago,