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CLINICAL LECTURE

ON

LACERATION OF THE OS AND CERVIX UTERI, AND THE OPERATION OF TRACHELORRAPHY.

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GENTLEMEN,—I propose to-day to discuss the subject of lacerations of the os and cervix uteri, and to give the result of my personal experience of trachelorrhaphy, or Emmet's operation, as it is often termed, in the treatment of these injuries.

As is well known, the operation, introduced to the profession by Dr. Emmet, of New York, has been largely practised in America. It was first performed in England by Dr. Playfair. Dr. Percy Boulton has published cases treated in this way. My attention was attracted by the results of Emmet, and I have pointed out the importance of the subject in the last edition of my work. I have also practised the operation in a sufficiently large number of cases to accumulate a certain amount of clinical experience on the subject.

The following is a brief summary of the cases in which I have operated, together with the results; from which it will be seen that, out of eleven cases, eight were completely cured of the laceration (in one case, after two operations); while in two, partial union was obtained; and in one, an attack of cellulitis prevented a successful result.

CASE I.—Mrs. H., aged 25, was sent to me in 1881 by Dr. Dobson, of Bangalore. She had had two, both very large, children. In the first labour, the perineum was much torn. The child was born dead. She was extremely weak, and unable to walk. The uterus was said to be displaced. I found the uterus much retroflexed, large, and the cervix severely lacerated. The os presented what seemed at first to be a growth, but which was the everted and hypertrophied cervical interior. Trachelorrhaphy was very successfully performed. Later on, the perineum was repaired. The patient went back to India cured.

CASE II.—Mrs. G., aged 33, wife of an Indian officer, was seen with the late Dr. Iles, of Watford. She had had six children, and two miscarriages since. There was a very deep cervical laceration on the right side. There were much eversion, great thickening of the tissues of the os, and a slight laceration on the left side. The uterus was much anteverted. After rest and other treatment, the deep laceration was repaired by trachelorrhaphy, five stitches being used. The patient had been in a very feeble broken down state. The operation was quite successful. She has had a child since.

CASE III.—Mrs. C., aged 32, wife of a captain, had one child eight years ago. She suffered a long time from a numbing aching pain in the left groin; locomotion was difficult. There was a deep laceration on the left side of the cervix, also a less deep laceration on the right; in version of the anterior lip, which had assumed a snout-like shape, and was of some size. An operation was performed. Much cicatricial tissue was removed. There was difficulty in producing apposition of the edges, owing to deformity of the parts. Both lacerations were treated, by five sutures on one side and three on the other. Complete cure resulted.

CASE IV.—Mrs. —, aged 34, was seen with Mr. Deacon, of Kilburn. She had had two children, and two miscarriages. She had been under treatment for retroflexion for some time, with only partial relief; the discharge was profuse. There was laceration on both sides, very deep on the right side. Eversion was very great; there was raw-

ness of both surfaces. An operation was done on both sides; the result was good adhesion, and there were satisfactory results otherwise. The patient, at intervals, wears a ring pessary.

CASE V.—Mrs. W., aged 42, a hospital-patient, had had two children; the first labour was instrumental, and lasted six days; in the second, she was delivered by craniotomy. She had one miscarriage. The patient was very nervous, low spirited, and hysterical. She had had treatment for the chest, and was very weak. The uterus was much retroflexed, and low down. Treatment of the displacement not giving relief, trachelorrhaphy was performed. Both lips of the os were thick, indurated; on the left side there was a deep laceration, one inch and a half long. Union took place to a partial extent.

CASE VI.—Mrs. E. S., aged 36, laundress, a hospital patient, had had three children, all very large, and one miscarriage. She had been troubled by severe abdominal aortic pulsation, and had much treatment. There was much pain in the lower part of the abdomen. The uterus was much anteverted; the cervix was severely lacerated up to the vaginal reflection on the right side; less severely on the left side. The os presented an extremely vascular, velvety raw surface, due to eversion of the cervical lining. A double operation was performed. There was much cicatricial tissue, very dense, in the larger fissure. Four stitches were applied on one side, two on the other. On the removal of the stitches, a healthy looking vaginal portion, three-fourths of an inch long, was visible. Abdominal pulsation was diminished. The patient left wearing a pessary.

CASE VII.—Mrs. L., aged 29, hospital patient, had one child, after two days' labour. She was obliged to go to a situation, and soon afterwards had severe strain, and ever since severe ovarian pain and illness, obliging her to give up work. There was double laceration of the cervix, on one side more than on the other. A double operation was performed. Union was obtained, but partially gave way, in consequence, as is believed, of the patient getting up, fainting, and falling down a few days after operation. The result was considerable improvement.

CASE VIII.—Mrs. G., aged 39, hospital patient, had had seven children; two labours were difficult. She had had a sanious discharge in the first three months of the last three pregnancies. She had had much treatment for a paralytic affection of the neck (now cured), and had been treated for "ulceration" of the womb also. She had a severe strain recently, and was invalided, finding pain in motion. The uterus was anteverted and large. There was a very deep laceration of the left side of the cervix, and much eversion, but the everted surfaces were smooth and not raw. Three or four very large Nabothian follicles were found. Trachelorrhaphy was performed; the density of the tissues was very great. Union was not satisfactory. Three months later, she was again admitted; and a second operation, which proved perfectly successful, was performed. The patient was much relieved; the size of the uterus was much diminished.

CASE IX.—Mrs. P., aged 34, hospital patient, had her second child born ten years ago, after which she had a severe flooding and illness. Next she had a severe abortion; since which she had severe pains in the right side, extending down the leg. Three children had been born since, each at eight months, and she has had one miscarriage. The os uteri was triradiate from three lacerations. There was much eversion and erosion, and general irritation. An operation was performed; the three lacerations were dealt with by five, four, and three sutures respectively. An attack of cellulitis followed the operation. Union was obtained, but not maintained. It would have been better probably, if, in this case, a longer preparatory treatment had been enforced. The patient was much relieved so far, however, by the persistent leucorrhœa.

CASE X.—Mrs. N., aged 31, hospital patient; the subject of retroversion and a severely lacerated cervix for some time. She had had eight children, the last child nine years ago, since which she had had nine or ten miscarriages. The last labour occupied fifty hours. She had been in hospital, under treatment for the retroflexion, two or three times, without relief. The operation of trachelorrhaphy had been recommended, but the patient had only now consented to having it

done. There was double laceration on the left side to the insertion of the vagina, on the right less deep. There was much eversion, but the raw surface was only limited in extent. A double operation was done. The result was extremely good. Two months afterwards, her condition was very satisfactory; she felt well. A Hodge's pessary was ordered to be worn.

CASE XI.—Mrs. P., aged 37, hospital patient, had had two children. Her first labour was severe, instrumental. She had severe pain down the right side, as if there were a sore place there. The uterus was low down, retroverted. There was a deep ulceration on the right side of the cervix. The operation was completely successful. Subsequent accounts were good. A Hodge's pessary was ordered to be worn for a time.

REMARKS.—Observation of the cases which have been above related has suggested the following remarks on the question as to the influence of lacerations of the cervix in giving rise to symptoms, to interference with the comfort and health of patients, in regard to their interference with pregnancy, and in reference to the question as to the predisposition to uterine cancer held by some to exist in cases where such laceration is present.

General discomfort, and incapability of walking and following ordinary avocations, frequently spoken of as "weakness," constitute the most generally present symptoms in cases of chronic cervical laceration. It may be objected, that these symptoms are indefinite; but, as a matter of fact, they are the symptoms which cause the patient most frequently to seek advice. These feelings on the patient's part are associated with various other symptoms in different cases, and it need hardly be stated that there is nothing pathognomonic about them, for this general misery and incapability may be due to other causes.

Pain was frequently observed in the cases under my notice. It is not always so, but there is frequently a characteristic pain on one or other side near the groin, as if there were a sore place, and more or less persistently present, often extending down the leg on the same side. When this pain is not present, a constant aching discomfort, or increase of discomfort from walking, may be observed. Pains in the situations indicated are not actually pathognomonic of cervical laceration; for they may be due to severe flexion, which is not seldom associated with lacerations. On the whole, it may be stated that severe chronic pain traceable to lacerated cervix constitutes a frequent indication for the operation.

Reflex symptoms are occasionally observed. In one patient, there was present a most painful abdominal aortic pulsation, together with tenderness of skin at various spots, which became much relieved after the operation. There had been, in the same case, other anomalous nervous symptoms.

Liability to Cellulitis (Parametritis), possibly also to Perimetritis.—There is no doubt of the fact that an inflammatory exudation is liable to occur in immediate proximity to a laceration, probably due to septic absorption. Thus, one of my patients had, to my knowledge, a deep laceration of the left side of the cervix. A little while afterwards she was delivered of a second child, and three days after the labour I was requested to see her, and found her suffering from cellulitic effusion of the size of an orange, close to the laceration. Probably the existing laceration had been increased during the labour, and hence the inflammation. I think it probable that many cases of cellulitis *post partum* are connected with laceration, possibly very slight, and in themselves unimportant, but sufficient to give ingress to septic material. This view of the matter I have seen maintained also by others who have written on the subject. In a minor degree, there can be no doubt that local uterine inflammation, short of actual cellulitis, is frequently set up by the physical injuries to which the everted mucous membrane is subjected.

Leucorrhœa or menorrhagia does not necessarily indicate necessity for operation in cases of laceration. There are, however, symptoms frequently present in a severe degree in such cases; and there are undoubtedly cases in which the leucorrhœa or the menorrhagia cannot be satisfactorily dealt with, unless the cervix be repaired.

Of the several *morbid changes at the os uteri*, which appear to be unquestionably due to laceration of the cervix, *eversion of the lining of the cervix* is one of the most important, subjecting the delicate already torn surface to friction and injury in various ways. Hence some of the so-called severe ulcerations. The irritation thus produced leads to further notable effects. The most important of these are swelling of the tissues of the os uteri, and consequent hypertrophy, so that in a severe case the os uteri often presents two large masses, looking like two tumours growing at this situation; or there may be only one, constituting sometimes a long snout-like prolongation, one surface of which is smooth, and other perhaps raw and rough. Profuse losses,

leucorrhœal, and sometimes menorrhagic, result. It is a fact which I have several times verified, that this hypertrophy disappears when the repair of the laceration is effected, sometimes with extreme rapidity, doubtless indicating that the circulation in the tissues round the os had been impeded owing to the rent. Eversion of the lining of the cervix to any great extent can hardly occur without cervical laceration, and the operation of trachelorrhaphy is most effective in removing this irritating condition. It may be said, indeed, that it constitutes the only real cure for it. It is true that an alternative treatment, namely, the use of the cautery, may be made effectual in curing the tendency to eversion; but this method must be regarded as inferior to trachelorrhaphy, and there is necessarily a risk of bringing about a cicatricial closing of the os uteri, if the cautery be extensively employed.

Formation of Cysts is another result of laceration with great eversion of the os. These cysts may be found as large as peas, three or four or more in number, on the surface of the original wound, or near the free end of the hypertrophied lip.

Judging from my own experience, *miscarriages* frequently occur in cases of lacerated cervix, and, in some cases, are distinctly connected with it, though in others they seem in part due to a coexisting displacement. Thus one patient with displacement *plus* severe laceration had had nine miscarriages; another, similarly affected, had had two miscarriages; another, one miscarriage. In two other cases where laceration alone existed, miscarriage had occurred; and, in one case, the three last labours had taken place at eight months, due, no doubt, to the existence of the laceration. It appears to be the fact that, in certain cases of severely lacerated cervix, the tendency to miscarriage can only be cured by repairing the injured structures.

Association of laceration of the cervix with acute *retroflexion*, or with troublesome *antelexion*, is not seldom met with. The question arises, What is the connection between the displacement and the laceration? It is reasonable to suppose that, when the laceration is extensive, a displacement of the body of the uterus forwards or backwards will more readily occur. In one of my hospital cases, where retroflexion was present, the condition of the patient was found to be practically irremediable and unrelievable, until the laceration was dealt with. On the other hand, the displacement would, of course, intensify and aggravate the effects of the laceration. In a case recently under my notice, where the position of the uterus had been kept right by a pessary, and the instrument removed for a week, to facilitate preparation of the patient for the operation, it was found that the eversion had, at the end of that time, become much more severe, and the lips of the laceration much opened out, as the result of the recurring displacement. In cases where the laceration is slight, and the displacement considerable, an operation might not be necessary; but, when the laceration is extensive, the patient cannot be thoroughly relieved in any other way than by performing a repairing operation.

The degree to which the laceration extends varies, of course, in different cases. As a rule, the symptoms and bad effects are in direct proportion to the depth of the laceration. When the laceration extends more than half way up the vaginal portion of the cervix, it may be said to be "severe;" but, when it falls short of this, unless there be great eversion of the lining of the cervix, the case does not seem to be one calling for operative interference. Such would seem to me, at least, a proper restriction to make. And, again, when there is a severe laceration on one side, and a trifling one on the other, it will probably be found sufficient to deal with the more severe one only by operation. The absence of erosion is sometimes observed in long standing cases of originally severe laceration. In such cases, however, it may be found that the cicatricial tissue at the bottom of the tear is extensive, and seems to be the cause of continuous pain, which would necessitate operation for its relief. The cicatricial tissue probably compresses certain nerves, and thus may produce pain at the spot, or induce reflex irritation elsewhere.

When the degree of the laceration is very considerable, it appears to be desirable that an operation should be performed, even in cases where severe symptoms have not yet arisen. For instance, if, on examination at the end of the puerperal period, the cervix be found deeply lacerated, it would be better to restore the integrity of the cervix at once, rather than wait for the secondary irritation and other effects which are in most cases pretty certain to occur later.

In all cases when the condition has become chronic, it is advisable to subject the patient to a careful treatment, consisting of rest, hot douches, and other remedies calculated to improve the condition of the parts, at the end of which a judgment will be more readily arrived at as to the real necessity for an operation; besides which, the operation will, by such preparation, be more likely to succeed if finally determined on.

The advisability of the operation in order to prevent occurrence of cancer of the cervix uteri, has been strenuously urged in America, and the question is certainly a very important one. For, if it be the fact that a torn cervix uteri is more likely to become the seat of cancer than a sound one, that would constitute an important argument in favour of carefully repairing these injuries, even in cases where the laceration is only slight in degree. What is known as to the relative frequency of uterine cancer where sexual intercourse has occurred, and in those where it has not, favours the conclusion that the latter class is markedly less liable to the disease. At present, we are hardly in a position to say whether this comparative frequency of cancer in the former class of cases is due to the mechanical injury of the structures at the os uteri (including cervical lacerations), or to the increased functional activity of the uterus associated in such cases. That eversion of the mucous lining of the cervix, followed by mechanical bruising of the structures, probably constitutes a condition in a certain degree favourable to occurrence of cancer, may be strongly suspected. In a recent paper, Zinke (*Jour. Amer. Med. Association*, July 25th, 1885), who has collected opinions on the subject of the indications for the operation from various authorities, concludes that, when there is present hereditary tendency to cancer, marked lacerations should be always dealt with by operation, even in cases where no present inconvenience exists, and solely with the idea of warding off the occurrence of cancer. This appears to me to be a proper view to take of the subject. Further, it may be suggested that, if the laceration be not so severe as to necessitate the operation, the desirability of cauterising the torn surfaces, even in cases when there is no special hereditary tendency manifest, presents itself. For it must be recollected that, in many cases of uterine cancer, no history of hereditary tendency is discoverable.

Summary.—There will, no doubt, be differences of opinion as to the indications for the performance of trachelorrhaphy; but the following may be submitted as embodying conclusions at which I have personally arrived:—

The operation is indicated by the presence of a chronic extensive eversion of the cervical lining; by the presence of considerable hypertrophy of the os, the result of laceration, and the more so if hypertrophy and eversion be conjoined; by the presence of chronic severe local pain, evidently traceable to the irritation of a raw surface less extensive in amount, or traceable to cicatricial hardening at the bottom of the fissure; by the association of marked laceration with a troublesome displacement of the body of the uterus; by the presence of repeated miscarriages in a chronic case; by the presence of a severe recent laceration, even in cases where no severe symptoms have had time to develop themselves, with the view of preventing (1) cellulitis; (2) the occurrence of cancer; (3) the supervention of symptoms generally; lastly, by the presence of general severe prostration, inability for locomotion, etc., obviously traceable to laceration.

The operation itself is not, in most cases, a difficult one, but, in some cases, it is so. In assisting to hold the cervix down, I have found the large tenaculum hooked forceps, depicted in the last edition of my work on *Diseases of Women*, made by Mayer and Meltzer, of very great utility. Sometimes the nodular hypertrophy renders coaptation of the edges, after paring them, not easy, owing to one side of the rent being very short, the other very long. Another difficulty is, in some cases, the excessive hardness of the tissues to be perforated by the needle, which is sometimes so great that much force is required to penetrate the tissues. The needles need to be very strong for such cases. I have found No. 6 silver-wire most suitable for sutures, and have generally removed them in not less than ten days. Probably it would be better to leave them a week or two longer, in cases where the patient is very weak and nutritive action feeble. The importance of a preparatory treatment before proceeding to the operation has already been pointed out.

DEVONSHIRE HOSPITAL, AND BUXTON BATH CHARITY.—A donation of £100 has been received by this institution during the past week from Mr. William Coare, Brocklehurst, M.P. for the Macclesfield division of the county of Chester. The donation was sent through the hands of Mr. R. R. Duke, one of the trustees of the hospital. A small legacy has also been received by the institution from the executors of the late Joseph Barlow, of Haslingden, the amount being £17 18s. 4d.

CHOLERA AT SEA.—An epidemic, supposed to be cholera, has broken out on board the Queensland Line steamer *Dorunda*, which arrived at Townsville on Dec. 11th. The *Dorunda* has arrived at Brisbane. Since the beginning of the outbreak there have been altogether thirty-one cases and fifteen deaths.

A LECTURE

ON

THE EXCITING CAUSES OF DISEASE.

Delivered before the Edinburgh Health Society.

By BYROM BRAMWELL, M.D., F.R.C.P. Edin.,

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MY LORD PROVOST, LADIES, AND GENTLEMEN,—In the lecture which I had the pleasure of delivering to the members of this Society a year ago, I directed attention more particularly to the derangements of nutrition and to those disorders which result from infringement of, what may be termed, the elementary laws of health. And before proceeding to the subjects which I wish to bring under your notice this evening, allow me very briefly to recapitulate one or two of the more important points.

We saw that, for the nutrition of the body as a whole, and indeed of each one of its individual organs and parts, certain requirements are necessary. These are: 1, a sufficient supply of nutritive material—blood-plasma; 2, a sufficient supply of oxygen; 3, satisfactory removal of waste-products; 4, a healthy condition of the nervous system; 5, a sufficient amount of rest and sleep.

Now it is the object of this Society to supply to the inhabitants of Edinburgh in the first instance, and then (by means of our published lectures) to the community at large, a knowledge of health-matters. I regret that we are unable to supply to those who need it the power of self-control. We must look to the parents (more especially to the mothers) of our children, and to the teachers in our schools, for the training and development of the will and the power of self-control. There are undoubtedly great natural differences in the force of will and the power of self-control in different individuals, just as there are great natural differences in the power of acquiring information, of reasoning, and of all the faculties of the mind; but what I want particularly to insist upon is this, that the power of self-control is to a large extent a matter of training and of habit, and that the education of this power of self-control, the power of inhibition, as we technically term it—the power which the highest nervous centres have of restraining, controlling, or inhibiting the action of other and lower centres—the highest faculty of the nervous system, should begin in early infancy, and should be steadily cultivated and perfected all through life. What, I would ask, is the use of teaching a child the theoretical distinction between right and wrong, if you do not at the same time endeavour to strengthen its will and its power of self-control; if you do not encourage it, by example as well as by precept, in the habit of doing what is right, and in the habit of not doing, or in other words, in the habit of inhibiting or restraining the desire to do what is wrong? I would like to repeat more emphatically and more fully than I did in my last lecture, that the main object of education—I am, of course, speaking of so-called secular education (I may, perhaps, be allowed to remark in passing that I do not like the word secular as applied to education, for I cannot conceive of any system of education which does not include as its first fundamental the inculcating of the higher moral and religious truths)—I say that the main object of education is not, as some people seem to suppose, to cram the child with the greatest amount of fact-knowledge, but to teach it how to work; to cultivate its power of application and of mental concentration; to teach it habits of cleanliness, order, regularity, and diligence; to call forth, stimulate, and strengthen its powers of observation and reasoning; to give it opportunities of experiencing the feeling of mental satisfaction and enjoyment, with the resulting invigorating effect, both on body and mind, which attends the successful accomplishment of any piece of work, however small, which is well done; to set before it a high ideal of life and conduct; above all, to strengthen its will, to give it force of character, and to teach it the power and habit of self-control.

Now, these which are, in my opinion, by far the most important objects of any system of education, are difficult or impossible to measure by any system of payment by results. There is a possibility, therefore, of their being to some extent undervalued or lost sight of, both by the managers of schools in the selection and appointment of teachers, and by the teachers themselves.

The Exciting Causes of Disease.—This evening I wish to direct at-