and quadriceps extensor, and is attached to the condyles of the femur and the tuberosities of the tibia. The rectus femoris and the vasti are attached, the rectus to the upper part, and the vasti to the sides, of the patella. From these, tendinous fibres pass across the patella, and become continuous with the ligamentum patellæ. In fact, the patella is regarded by many anatomists as a sesamoid bone developed in the tendon of the quadriceps extensor muscle, which is inserted into the tubercle of the tibia. The external and internal lateral ligaments are inserted nearer the back than the front of the knee-joint.

Bearing these important points in mind, I humbly submit that the following advantages will be obtained by operating in this way.

1. The attachments of the fascia lata, the lateral ligaments, and the prolongations of the vasti to the tibia and fibula, are not divided as they are in nearly all the other methods employed; consequently, there is much more support to the joint during the healing process and when the leg is well.

2. Above the patella the synovial pouch is well opened, and all the synovial membrane can be thoroughly removed.

3. Dislocation of the tibia backwards, and tilting of the femur forwards, which commonly occurs after the operation, is thus prevented.

4. The joint and the ends of the bone can be thoroughly examined where in those methods of lateral incisions I can hardly imagine how a good view can be obtained.

5. The undivided quadriceps is a strong antagonist to the hamstring muscles; and, should the splint be left off, the leg is much less likely to become bent.

6. Progression is greatly improved, the attachment of the quadriceps being neither divided nor the muscle shortened, as must necessarily take place when either the transverse, H or V-shaped operation is performed.

7. And, above all, as we hope after excision to obtain movement in the knee-joint, I think the chances of such a result being brought about will be greatly facilitated by the operation submitted to you to-night.

CASE I.—Frederick H., aged 9, a delicate-looking boy. Family history good. Previous history: When five years old, he had scarlet fever, followed very soon after by measles. A short time after the fever, the child complained of pain in the right knee, accompanied with swelling of the joint. He was taken to Guy's Hospital, and attended there as an out-patient for sixteen months. He then went to the country; but the knee did not improve, there being frequent pain and swelling of the joint. A fall greatly aggravated the disease, and the leg became flexed on the thigh. On April 22nd I saw him, and found the joint in the following condition. The right knee-joint was swollen, hot, and tender, the leg being bent so as to form nearly a right angle with the thigh. The tibia was displaced backwards and outwards. The muscles of the leg were wasted; the synovial membrane was thickened, and there was an abscess at the lower and outer part of the joint. The joint was fixed, and any attempt at movement caused the child pain. Measurement around the right knee over the patella, $12\frac{1}{2}$ inches; the left, $11\frac{1}{2}$ inches.

On May 6th I operated in the manner before described, removing all the synovial membrane, which was greatly thickened and diseased; and cut thin slices off the tibia and femur. The patella, being healthy, was left, and sutured with catgut. The split quadriceps muscles and ligamentum patellæ were also sutured, postero-lateral drainage being used.

May 7th. There being extensive oozing, the leg was dressed under ether. Temperature 101.6° .

May 8th. The boy had a restless night; no pain. He vomited, and there was a trace of carbolin in the urine. Temperature 101° .

May 12th. Temperature normal, and from that day remained normal. As no discharge came through the dressings, the patient being quite comfortable, the knee was not touched again until May 20th, thirteen days after the first dressing. The wound was then quite healed; so the sutures and drainage-tubes were removed, there being only a little bloody discharge, no pus on the dressings. Antiseptics were again applied.

June 2nd. The knee was dressed again, antiseptics being now discontinued. The openings occupied previously by the drainage-tubes were healed. A small piece of the cicatrix, about the size of a farthing, had slightly broken down; the bones were well united. Side-splints, which had been used, were discontinued, and the ulcer was dressed with zinc ointment.

July 1st. Another part of the scar broke down; otherwise the patient was quite well; no pain; no bone to be felt in probing the wound.

July 20th. He went to the country, the leg being enveloped in a strong leather splint.

August 17th. The knee was quite well, and since that time has remained well. The boy was shown at the Medical Society of London, December 6th.

CASE II.—Alfred T., aged 8, had a very similar history to the former case. His left knee was excised in the manner I advocate. Space forbids me relating the case in full.

Lastly, I wish it to be understood that by this operation I hope the patients may be able to have a movable knee-joint, as this method is specially suited to those cases in which the synovial membrane is chiefly involved.

In the next case I operate upon, I intend thoroughly to remove the synovial membrane, and only dig out with a gouge the diseased spot on the cartilage; I shall not in any way interfere with any of the cartilage that looks healthy.

If the crucial ligaments are not extensively diseased, they shall be left undivided. The joint then shall be kept at absolute rest until the wound has healed, when I shall commence passive motion.

ON THE USE OF STEM-PESSARIES.¹

By J. GORDON BLACK, M.D. LOND., Harrogate.

SEVERAL interesting discussions upon the subject of this paper have taken place in recent years, at the meetings of this Association, and of the Obstetrical Society of London. Not only have they been favourable, in the main, to this mode of treatment, but it has had the advantage of such able and distinguished advocacy as that of Drs. Routh, Wynn Williams, Greenhalgh, and others, who have quoted numerous successful cases in support of their views. Nevertheless, there is a decided prejudice to be noted in some professional minds against the use of these instruments. A gentleman who has just completed his education at one of the largest London hospitals tells me that the teaching there entirely discredits this practice. Not long ago I was consulted by a young lady, suffering from an acutely ante-flexed uterus, which admitted a fine sound with difficulty. The periods had been increasingly painful, and accompanied by distressing neuralgias and dyspeptic troubles. In my provincial ignorance I advised that a simple stem should be worn for a few months, feeling confident that a cure would result. However, the family doctor, a distinguished London surgeon, when applied to, wrote back to the lady's mother that he would have nothing to do with such a dangerous remedy.

From such an adverse dictum I appeal to a personal experience of fifteen to sixteen years, during which I have constantly and successfully employed stem-pessaries; and, further, let me add that such experience has been corroborated by that of several provincial obstetricians, who have lately expressed to me their continued confidence in the utility and safety of these instruments when properly used.

Now, Sir, I believe that most of this distrust of stem-pessaries dates from a period a few years back, when they were used indiscriminately, and without precaution as to their effects. They were often introduced in the practitioner's house or the out-patient department of a hospital, and the cases not seen again till the next visit. Although, even under these circumstances, many patients did well, yet no doubt preventable mischief resulted to some. The uterus naturally, at first, regards a stem as a foreign body, and some varying degree of resentment is to be expected for a few hours or days. My own rule is to keep the patient in bed or upon a couch for about a week, or as long as there is much hypogastric pain or discharge of blood from the womb. A few hot fomentations with laudanum soon relieve the pain, and the administration of hazeline or ergot keeps the discharge in check. Even where there is no obvious necessity, I believe it safest to insist upon the horizontal position for about a week. This is also desirable for the first two days of several ensuing menstrual periods. Indeed, till tolerance is established, the presence of menorrhagia should induce extra care and rest. Under this head, the paper read before the Obstetrical Society of London by Dr. Routh, December 4th, 1873, is well worthy of study. Were those recommendations carried into practice, less would be heard about the so-called dangers of stem-pessaries.

In regard to the latter, the terror of certain gynecologists is somewhat grotesque, seeing that they do not hesitate to introduce into the uterus the most powerful irritants and caustics, or mould its tissue into new shapes by the boldest plastic operations.

The affections for which I have found stems of most use may be classed broadly under the heads: dysmenorrhœa and flexions. The dysmenorrhœa is evidently caused by a cervical stricture of some

¹ Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Brighton.

kind. Whether it be regarded as organic or spasmodic in character, the ultimate result is more or less obstruction to the menstrual function. Frequently the retardation is so great as to cause amenorrhœa, with all its attendant troubles, and serious constitutional complications. As an illustration, I quote the following:—

An unmarried lady, aged 28, stated that she had suffered a severe fall about five years ago, while skating upon the ice. The lower part of the spine was much bruised. After this, the menses became very painful, and then irregular, and now complete amenorrhœa had persisted for six months. Besides dragging pains in both inguinal regions, complaint was made of constant dyspepsia, want of appetite, and frequent vomiting of food. Gastralgia was the usual result of a meal, and could only be relieved by emptying the stomach. The general appearance of the patient was suggestive of phthisis, but no chest affection was discovered. Upon vaginal examination, the uterus was found high up and very movable. There was a tight stricture just within the os tincæ, which at the first visit resisted my utmost efforts with a fine probe. Next day, however, I succeeded, and by-and-bye also gained admission for a vulcanite stem. She was kept in bed for a few days; but little or no pain was felt. It was truly astonishing to witness the magical way in which the reflex disorders disappeared. Gastrodynia was cured, and appetite and digestion returned with vigour. The menses soon became as regular as before her accident. Without further interference from me, the stem was worn for about eight months, after which time it was removed, and I am glad to report that the body has since then remained perfectly well. Under the conditions described, I believe some practitioners would have used a hysterotomy in this case. However, putting aside the danger of hæmorrhage, and the increased chance of sepsis—certainly no small drawbacks to the utility of the instrument—the fact remains that where the latter can be employed, a stem can always be introduced, probably with the prospect of a more permanent and satisfactory result.

Cases similar to that just described are not at all uncommon; and I believe are nearly always curable in like manner. In married women the removal of the stem is very frequently followed by pregnancy, which latter was impossible previous to the treatment. Where the strictured condition of the cervix goes unrelieved for several years there is great danger of some constitutional or local disease supervening. In one of my patients aggravated optic neuritis had been present for a long time, and she had undergone various iridectomies at the hands of a celebrated oculist. The violent attack of inflammation which had originally ushered in this complaint, was synchronous, I learnt, with a sudden stoppage of the menses; and the ophthalmic congestion was always worst at these times. From the decided relief which followed the introduction of a stem, I could scarcely resist the conclusion that, had the uterus been treated instead of the eyes, the metastatic congestion would have been removed, and the lady's sight saved.

Referring now to uterine flexions: I have long made it a rule, where these are aggravated and of long standing, not to waste time in trying outside pessaries, but at once to apply the stem, with a proper basic support, capable of maintaining the womb in something like a natural attitude. Other forms of pessary merely turn the organ around its axis of suspension, or perhaps make matters worse by slipping up into the angle of flexion. In ante flexion, they often produce irritation by too much pressure behind the bladder; whilst it is very difficult to get a satisfactory fulcrum for the instrument in cases of latero-flexion. Then, again, the success of an outside support is often marred by the presence of a tender prolapsed ovary or tumefied cyst, which decidedly resents being used as a buffer between a pessary and the womb.

Now, under the proposed method, the uterus is simply worn upon the stem like a glove on a finger, without undue pressure being exerted at any one point. By the erect position, the circulation of blood and lymph through the organ is rendered easier, and nipping of nerves and tissues avoided. Abundant opportunity is thus given during treatment for the strengthening of atrophied structures, or the absorption of hypertrophies. The various reflex neuroses are soothed into a quiescence which is soon rendered apparent by the increased desire and ability for active physical exercises exhibited by patients. Such tendency should be encouraged in every possible way, and all habits of invalidism disallowed. In order to keep pace with the increased tissue-change, a most liberal meat-diet three times a day should be prescribed. Provided that a due amount of muscular exercise be taken, it will be found that appetite and digestion are quite equal to the occasion. By such means a renewed tone and muscularity is given to the body generally. The tissue-fibre of the womb, of course, receives its quota of improved strength, and, if sufficient

length of time be allowed, is eventually enabled to hold its own when the factitious support contributed by the stem is withdrawn.

Amongst the various stem-pessaries in vogue, I have preferred that of Dr. Graily Hewitt, on account of its excellent shape and cleanliness while in use. It is made entirely of vulcanite, which is unacted upon by secretions. This cannot be said of india-rubber or gutta-percha, on account of the unpleasant odour they create, which is most offensive to the patient, and also probably, sooner or later, prejudicial to health. Dr. Hewitt's pessary, however, has several serious disadvantages. It is by no means easily applied; and the stem is very apt to slip out of its socket in the basic support. When the instrument holds together it does so with such tenacity as to be only removable as a whole—a very uncomfortable and unscientific operation. To remedy these defects, I have made certain alterations, illustrated, in the specimens now shown. It will be observed that the stem fits into an oval, instead of a round, socket, and is permanently fixed there, at the pleasure of the practitioner, by a little gold bolt. The latter is under his complete control, so that the pessary can be removed, as well as applied, in its separate portions. The introducer, now shown, enables the obstetrician to hold the stem in any position he desires, without danger of slipping, until the various steps of the operation are concluded. I may certainly say for the pessary, as altered, that it is simple in construction, easy of manipulation, and does not tend to get out of order while being worn. The latter is an advantage to be appreciated by all who like myself, strive earnestly to make vaginal manipulations as "few and far between" as possible.

In the *Lancet* for May 16th, 1885, I have recorded, for another purpose, a case of hysterical mania which aptly illustrates the efficacy of stem-pessaries in the treatment of uterine flexion. Hysteria had taken such complete possession of its victim as to present to my notice, within a brief period, the following manifestations, namely: Double wrist-drop; inability to flex the body upon the lower extremities, so that the patient was unable to rise from a recumbent to a sitting posture, nor, if placed in the latter, was she able to stand erect; intense salivation, accompanied by horribly foetid breath; complete aphonia, lasting many days; paralysis of the inspiratory muscles to such an extent that sometimes she seemed threatened with immediate suffocation by the retained mucus; and, lastly, the occurrence of catarrhal croup of very decided character. The lady had become a slave to the hypodermic use of morphine. "Under its soothing influence she was indeed happy and reasonable, but, so soon as the effect passed off, she became once more a raving lunatic, disturbing night and day the neighbourhood where she lived."

Now, the *fons et origo malorum* turned out to be a completely retroverted and retroflexed uterus. I noticed that, whenever the womb was lifted upwards and straightened, the patient felt immediate relief, and became reasonable and manageable, however outrageous had been her previous conduct. A Hewitt's stem was accordingly introduced, and proved to be the only pessary competent to maintain the organ in an erect position. The results were most encouraging. In a very short time the patient was able to give up the morphine habit of several years' standing; sickness and vomiting moderated, and then disappeared, their place being taken by a natural appetite; and, finally, she threw off invalidism, and left her bed and couch for the long-forgotten pleasures of locomotion. The lady was practically well in about eight months; and I am pleased to add that she remains so, though an interval of nearly three years has elapsed. At no time during the treatment of this case did I ever witness the slightest irritation from the stem. In aggravated cases of flexion one not infrequently observes this perfect tolerance, as if the womb instantly recognised the aptness of the remedy.

As an instance of reflex neurosis, the following case may be worth quoting:—A lady, aged about 48 years, consulted me on account of a harassing infra-mammary pain, with which she had been tormented for several years. It was never quite absent, but agonising exacerbations, closely resembling attacks of angina pectoris, were very frequent. During these seizures she would sit rocking herself to and fro, grasping the left breast tightly with both hands. I could discover no evidence of thoracic or other organic disease. Beyond some menorrhagia, not unusual at her age, she denied having any pelvic trouble or disordered function; so much so that, had it not been for the necessity of finding some adequate cause of the frequent nerve storms, I should never have made a vaginal search. However, it was fortunate that I did so, for a large, heavy uterus was discovered, lying across the vaginal roof in a state of complete left latero-flexion. The sound entered between three and four inches, and the case did not seem very promising for treatment. A Hewitt's pessary, with an extra length of stem and large-sized basic support, was nevertheless introduced. It was cheering to observe that in two or three days afterwards the pain had decidedly

moderated. By the end of a week it even disappeared for many hours at a stretch. This, it must be borne in mind, was the first real relief which the lady had experienced from the visits of her terrible enemy for a number of years. Previous to the application of the stem walking was difficult and painful; whilst riding in a train or carriage always made her very ill. Now, however, all was changed, and she was enabled to practise locomotion again with comparative comfort. This lady is now enjoying fairly good health, though the stem was relinquished more than a year ago, after it had been in use about sixteen months.

Of late, it has been somewhat the fashion to speak of uterine ailments as mere neuroses, and accordingly to decry mechanical appliances as means of cure. Of such a view I declare emphatically that none of my experience is corroborative. If the neuroses I have been describing were not reflective of the specified uterine distortions, one certainly is puzzled to realise how a stem pessary would succeed in banishing nervous disorders which had obstinately resisted all medicinal methods of cure. What, may I inquire, are the alternatives to mechanical treatment? If they are to include an elaborate and costly system of nursing, with medical rubbing, carried on for a lengthened period under special surroundings, I would ask, *cui bono*? when the comparatively simple and inexpensive means I have indicated are capable of restoring the patient to health.

I do not, of course, pretend that the stem-pessary is an instrument to be put into the hands of practitioners who have not had the advantage of some special education. Nor do I desire to advocate its employment, except in such aggravated cases as have been quoted; but enough has, I trust, been advanced to warrant its occasional judicious application without fear of any very dreadful consequences ensuing.

TWENTY CASES OF EMMET'S OPERATION FOR LACERATION OF CERVIX UTERI.¹

By M. BEVERLEY, M.D. Ed., Norwich,
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THE results rather than the records of twenty cases of Emmet's operation of trachelorrhaphy would have been the more correct title for the short paper I have to read to you, as I do not propose to weary you with detailed notes of the individual cases. I have already read them at Norwich and Ipswich.

It may be, I think, reasonably granted that laceration of the os and cervix uteri occurring during labour was the primary cause of the abnormal conditions which rendered these operations necessary, as they were all performed on women who had borne children; and, although I can give no precise information as to the actual character of the various labours (as I attended but one of the patients), I have ascertained that of the twenty, sixteen were multipare and four primipare; of the latter, three had forceps applied. In a large proportion of the multipare instruments were employed during some of the labours, which were often described as difficult. In six, rapid delivery is noted; most of the patients remarked on their bad "getting up," that their milk was arrested or absent; five spoke of the fever they had had, four of inflammation of body, three of inflammation of leg,—all, in fact, giving more or less evidence of septic conditions, producing cellulitis in some, phlebitis in others, consequent on laceration of the cervix occurring during one or more of their various labours, and, owing to a septic condition, remaining unhealed.

In the one case which I attended myself, the patient suffered from pelvic cellulitis after labour, unquestionably septic in origin; there is good reason to believe that this was due to an extensive laceration of the cervix, which was subsequently cured by Emmet's operation.

Of their general symptoms, or those which led them to apply for treatment, the most marked were persistent backache, irritability of bladder, leucorrhœa, irregular menstruation, in some menorrhagia, marked anæmia, headache, sleeplessness, irritability of disposition or depression of spirits, and many reflex symptoms (such as facial neuralgia) usually associated with and referred to uterine disorders. When examined *per vaginam* (and here I may remark that by Sims' speculum, or its modification alone, aided by tenacula, can the true condition of a torn cervix be recognised), I found in all my cases evidence of laceration of the cervix uteri in various degrees, resulting in fissures more or less deep, unhealed and eroded surfaces, indurated tissue, what has been termed cicatricial ectropion from the roll-

ing out of the tissues of the lacerated cervix, and the subsequent obstructed circulation. In the majority, the laceration was in the anterior lip, in others in the posterior, some in both, giving rise to a stellate appearance.

In most there was erosion—what used to be termed "ulceration," of the "rolled-out" tissues—in nearly all the uterus was abnormally large; in some very considerably so—from arrested involution. In many a considerable amount of cicatricial tissue existed, giving rise, as I have repeatedly proved, to many reflex symptoms, and due in some cases to the "healing powers of nature," but in by far the majority produced by the efforts of art, and certainly not of fine art. They were the natural result of the repeated use of irritants, caustics, or the cautery, by the various gynecological artists through whose hands the patients had passed—and myself among their number—as I invariably pursued what may be termed the routine practice for that which I thought and had been taught, were uterine ulcers. I continued doing so until I saw Dr. Emmet perform his plastic operation, and heard his lucid description of its *rationalité*, in the operating theatre of the Women's Hospital in New York, where this distinguished American gynecologist demonstrated this and other of his special operations to several medical members of the British Association who, in the autumn of 1884, were passing through New York.

Of the twenty cases, ten have been performed in the Norfolk and Norwich Hospital, and ten in private practice; eighteen healed entirely by first intention; two only partially: of these, I repeated the operation in one, with a successful result; in the other, the patient left the hospital before I could do so, and has not since returned. I have examined several since the operation, and have found the condition of the os and cervix most satisfactory, and the uterus normal as to size and position. Two have become pregnant, one has been delivered since the operation, but I have not yet had an opportunity of examining her since her confinement.

As this operation has been recently discussed in the columns of the JOURNAL of this Association, I felt that there would be an especial advantage in seizing the opportunity of Dr. Emmet's presence for its discussion here; personally, I am quite satisfied with the results obtained, and I know my patients are. I have not performed it in any case in which the orthodox treatment by topical applications has not been first thoroughly tried; and, when compared with the old system, this plastic operation gives far more satisfactory results. A linear, and after a time almost imperceptible scar is left—instead of a considerable indurated cicatrix—frequently of itself the cause of many reflex symptoms, and often the origin of more serious organic disease. Dr. Emmet claims for his operation that it secures to the patient an immunity from epithelial and other malignant affections of the os and cervix uteri, so much more frequent in women who have borne children than in others. He told me, when in New York, that he had not yet seen or heard of a single such case occurring in any of the patients on whom he had performed trachelorrhaphy during the past twenty years. If such be the case—if direct effects so expeditious and striking can be accomplished, if remote results so satisfactory can be obtained, and after consequences so grave and serious can be averted—then this simple plastic operation termed trachelorrhaphy, but for which its author prefers to use the English expression, observing that "it would be but human nature for the uninitiated to dread the severity of an operation so termed" should come into more general use. If these things be granted—and the experience of gynecologists in America, and so far as I know, of those who in this country have given Emmet's operation a fair and careful trial, amply confirms them—then it becomes our duty to select this means, rather than those hitherto adopted, for the cure of these accidental, but natural lesions, which under adverse circumstances lead to serious consequences direct or remote.

Emmet's Operation for Procidentia Uteri.—The object sought to be obtained by this operation is the construction, from the superabundant tissues of the upper part of the vagina, of a platform on which the uterus can rest, and the prevention of the yielding of this support by the formation of a natural buttress secured by the further removal of tissue from the anterior wall of the vagina, thus limiting the capacity of the vaginal cavity, and effectually preventing the descent of the uterus. I have not had the advantage of seeing Dr. Emmet perform this operation, but, according to the description of it in his work, I have done it three times. My first case was done a year since; it was one of complete procidentia of twenty years' duration. I had an opportunity of examining the patient very recently, and found the uterus *in situ*, the os resting on the vaginal *cul-de-sac* or platform. It had never once prolapsed, and the patient expressed herself highly satisfied with the result of the operation.

Dr. Beverley concluded his paper by a further reference to the cases

¹ Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association held in Brighton.