On Laceration of the Perinæum during Labour. By William M. Fahnestock, M.D., of Bordentown, N. J.

There are but few accidents that befall the parturient woman, more untoward, than laceration of the perinæum, and there is scarcely one which has received less attention from writers on obstetrics. Mauriceau, Baudelocque, Hamilton, Ramsbotham, Gooch, Velpeau, Bard, Dewees, Ryan, Meigs and many other prominent authors in this department of medicine, give it, while treating on the natural process of labor, merely a passing notice, and that confined more to precautionary admonitions than to directing attention to remedial resources, when it has taken place; while Merriman, Denman, Burns and Davis, though they indicate a few more curative measures than the writers just named, despatch it with a page or two of hurried remarks.

This silence on so important a subject can only be ascribed to the general impression, that the accident is of very rare occurrence. It may be so in the practice of judicious accoucheurs—for Dr. Dewees informed the writer, a few years since, that he had to contend with but one case, happening to himself, in his extensive practice; which he attributes solely to the patient attention he always bestowed in supporting the perinæum during the expulsion of the child through the os externum;—yet, such is the nature of things that, in some cases, with the best management, laceration of the perinæum is unavoidable. That this accident does not more frequently take place is surprising. Dupuytren justly remarks:—"To my mind the wonder is, not that it should occur sometimes, but that it should happen so seldom. Whoever has witnessed first labours, in which the vulva has so much difficulty in dilating, and the perinæum so much exposed

to become excessively stretched, must have felt some apprehension lest the head should burst through it. I am convinced that this passing of the head by the perinæum is not so rare as experience would seem to show, merely because the commissura vaginalis being ruptured, the accident receives the name of laceration of the fourchette;" and Roux says: "Partial laceration of the perinæum is an accident of very frequent occurrence in women who have borne children." It does occur frequently, we are satisfied, in general practice, from a very reprehensible neglect of the perinæum and the preposterous attempts of the midwife to dilate the vulva, with rude efforts, to assist a speedy expulsion of the child, either from impatience or an anxiety to deliver the woman from her suffering.

Our attention was directed to this subject by a case occurring in our own practice, eight years since, and the only one which has happened to ourselves in a practice of eighteen years—our experience in these cases being derived mostly from calls to women who had been attended by midwives; and which exemption we assign to the very earnest admonitions of our kind and distinguished friend Dr. Dewees, in setting out in business; which restrained every hasty and undue effort to effect delivery, and kept our attention ever watchful of the distension of the perinæal tumour; and particularly when it had arrived at its greatest stretch: at which period there is such a propensity to seize the head of the child with both hands, and present, to the anxious mother, the trophy of our dexterity.

The subject of the case just alluded to, was a very delicate lady, twenty-seven years of age, in her first labour, and who had fifteen months previously miscarried, at the fourth month of her pregnancy. She had been suffering under debility, from recent severe indisposition, accompanied by preternatural excitement of the general system, and attended with anasarca and constant disposition of the uterus to throw off its contents. On the 28th day of June, 1832, she was attacked with diarrhœa, which required bloodletting and other prompt remedies, as the violence of the pains threatened premature delivery. She was within three weeks of her full period, and on examination per vaginam, revealed a very relaxed os tincæ, with the mouth dilated to the size of a half dollar. The succeeding night the patient rested well, free from pain or uneasiness of any moment. But at nine o'clock next morning, (June 30th,) labour pains came on suddenly, with fearful rapidity, and before the bed could be prepared, the membranes protruded through the os externum, and the head forcibly distended the perinæum. In less than one hour from the commencement of the labour, the child was forced through the recto-vaginal septum, and in despite of all our efforts to obviate it by the most indefatigable attention to giving support to the perinæum and to relax the parts. Every measure failed to excite the usual sympathetic action or enlargement of the external parts; and what is still more singular, they continued without any tumefaction even after the accident.

Formerly we were disposed to consider the occurrence of this accident as the result of culpable negligence on the part of the attendant, but we are now satisfied that it is sometimes unavoidable. In this position we are sustained by the experience of M.M. Courtney, and Evrat, and Mad. Lachapelle; but more frequently it occurs from ignorance of the danger, and the want of proper attention on the part of the accoucheur; and we strongly suspect that it often happens when the attendant himself is not aware of it, from frequently finding traces of this accident in females in subsequent labours. On making inquiry of these patients, we have learned that it had not been communicated to the attendant; they having supposed, as many women, and particularly young women, in their first confinement, do, that it is a necessary consequence. Further, we have reason to believe, that when not extensive, it often occurs without being suspected by the patients themselves, and they do not complain of any thing but a little soreness, which is borne as inevitable. Dupuytren relates a case of a woman whose infant was delivered through an artificial aperture between the rectum and vagina—central rupture —without the mother ever suspecting the accident. This case was seen by MM. Baudelocque, Guersent, and Capuron; the latter of whom was sceptical, and maintained, that in every instance of central rupture, the child passes by the os externum; but the two former gentlemen and Dupuytren were satisfied of the delivery of the whole contents of the uterus—both child and placenta—through the rent, from the smallness and implasticity of the external organs. A case related by Denman may reconcile these conflicting opinions, in which he delivered the child, via naturalis, after the central rupture had taken place, by giving direction to the head with the palm of his hand through the vulva.

The extent of the injury varies greatly in different subjects, owing to the size of the child, the conformation of the bony and soft parts, the strength of the septum, the rigidity of the external organs, the force of the uterine contractions, &c., &c. It may sever the fourchette; and we are quite certain that this is frequently ruptured with all the greatest possible care; but as little or no inconvenience arises from this slight laceration, it does not require any particular attention. It may penetrate the septum, externally, between the vagina and rectum, half an inch, three quarters, an inch, or the whole extent to the sphincter of the anus; it may divide the sphincter ani, and continue up the rectum to the coccyx, exposing all the contents of the pelvis. The rupture of the sphincter ani presents an important and formidable feature in this injury, rendering it much more serious and difficult of cure. It may rupture the internal wall between the vagina and rectum without communicating externally; it may tear through this partition externally downward to the verge of the anus, leaving the sphincter ani entire; it may again be rent in the septum without extending to either the anus or os externum: and although this has been stoutly questioned, M. Moreau

states that there are forty cases of this strange accident on record. The cases just alluded to above by Denman and Dupuytren are confirmative on this point.

In the case which occurred to ourselves, the accident was owing to a relaxed and greatly dilated os tincæ before labour came on; a pelvis capacious at the superior strait, admitting of an easy and rapid descent of the child; and having exceedingly small and unyielding external parts; which did not take on the sympathy of dilatation and had not the strength to resist the forcible contractions of a powerful uterus.

Another operating influence in the production of similar cases, we think, may be found in the too early departure of the chin from the breast of the child; which is pointed out by our most observant accoucheurs as a cause of preternatural labours, retarding very much the delivery of the child, and throwing much stress on the perinæum. We had a case quite recently, which presented all the apprehensions of such a frightful termination.

The patient was a young woman in her first labour, which was very rapid, the membranes having burst and the head at the inferior strait when we arrived at the bed side. On touching first, we found as we thought, the head about escaping, two inches in diameter of the vertex just emerging between the distended vulvæ; but upon a more careful examinatton, we discovered that the os externum was mounted up towards the symphysis pubis and that the forehead of the child was presenting through the dilated anus—dilated to the great extent just mentioned. Here was an alarming state of things, to one impressed with the horrors of this accident; and a few minutes more under the very propelling contractions of the uterus would have revealed a terrific laceration, extending, most probably, from the rectum to the vagina. We lost no time in introducing two fingers of the left hand to elevate the forehead, and using the forefinger of the other hand in imitation of Roonhuysen's lever, brought down the vertex, and then, supporting firmly, the perinæum with the left hand, the child was delivered safely, and the mother saved from so lamentable a misfortune. Velpeau thinks that laceration of the perinæum is most apt to occur in the fourth and fifth presentations of Baudelocque, when they cannot be converted into the first and second; in which the perinæum is put much more on the stretch than in any other presentation of the head.

The too early departure of the chin of the child from the breast, could not well present but in a very capacious pelvis, so as to admit the vertex to engage under the symphysis pubis, and then without making much progress, the chin departing rapidly from the breast and describing the arc of its circle in advance of the vertex. We have rarely met with this condition: but it may be the frequent cause of those very extensive ruptures in this part which we find occasionally recorded, as having required immediate and extensive sutures to keep the lacerated surfaces in apposition. Most writers attribute the accident to a small pelvis and narrow perinæum; we,

however, are disposed to ascribe it generally, to rigidity of the recto-vaginal septum and implasticity of the vulvæ.

The evil *consequences* arising from this accident are manifold and sometimes of serious tendency; the principal are, 1. Want of support to the contents of the pelvis. When the recto-vaginal septum is ruptured so as to extend to the sacro-coccygeal wall, the uterus sinks and presents the worst form of procedencia; entailing the most insupportable sufferings, and connected, as it generally is, with inability to retain the fæces, render existence almost intolerable. 2. The great obstruction it presents in subsequent labours: the hardened and unyielding cicatrices acting as bands, prevent the descent of the head of the child, and interfere with the dilatation of the surrounding parts, without which the child cannot be born, save at the expense of extensive laceration. 3. The constitutional irritation sometimes excited by injuries and ligatures in this part, produces distressing symptoms in many distant organs.

The *treatment* of this accident is very simple in the commencement, but should we fail to effect reunion, it then becomes very perplexing. In slight cases after having cleansed the wound, the treatment consists in simply placing the woman on her left side; securing the parts together with adhesive strips; covering the wound with Goulard's cerate and keeping the patient perfectly at rest by tying the limbs. This, however, is not sufficient in most cases that come under medical treatment. Often it will be advisable to apply emollient cataplasms immediately, to bring on suppuration and granulation as early as possible, without which being speedily effected, the laceration is very tardy in healing, and frequently very imperfect when it does take place. So soon as the tumefaction subsides, granulations form, and there appears to be a disposition to unite, the parts are to be drawn together with adhesive strips adapted to close the wound, and to be covered with thin spread unguentum saturni, and all to be supported by a T bandage, or what will sometimes be found to be still more useful an X bandage. The bowels must be kept in a soluble state by an appropriate diet, of which, rye-mush and molasses is the best, or mush made of unbolted wheaten flour; and the wound must be firmly supported between two fingers during every evacuation of either the rectum or bladder.

If this plan of treatment be adhered to rigidly, in a short time adhesion takes place. Frequently, however, new skin forms over the lacerated surfaces, which keeps it from uniting; then we have all the difficulty of the original accident, save the hæmorrhage to encounter. This must be guarded against most diligently from the commencement, but when it does occur, we have found the caustic—nitrate of silver—most efficacious in promoting restoration. It should be applied with much care—the sound flesh bordering on the wound up to the edge of the new skin, should be shielded from the caustic running over it, by a covering of adhesive strips, and the caustic should be used as dry as practicable. After the skin has been removed, the denuded

lips are to be brought into close apposition by adhesive strips, and secured with a T or X bandage, over pledgets of lint.

A writer in the *London Medical Repository and Review*, for May, 1828, says, that the mucous discharge which is constantly running over the breach of continuity, is the cause of these injuries being so very difficult to heal, and recommends, in such cases, that the patient be kept as much in the prone position as possible, and that a wide slip of lint, well smeared with balsam copaiba, be carefully placed over the whole of the laceration. Trainel introduced an ivory canula, surrounded with charpie steeped in balsam of Canada, into the vagina, to carry off the lochia and prevent the discharges from passing over the surface of the wound; and Dr. Davis proposes for this purpose a wooden tube of seven or eight inches in length, of sufficient diameter to admit of being charged with a long piece of sponge, which on being pretty firmly applied to the distilling orifices of the uterus, might be made to conduct every particle of secretion beyond the os externum.

Dupuytren, Dieffenbach and Roux recommend the use of stitches from the commencement; a practice we conceive exceedingly prejudicial to the ultimate welfare of the woman. It should be a dernier resort when every other expedient has failed.

We feel some delicacy in running counter to the opinions and practice of such high authority; but our convictions of truth and duty cannot be turned aside by the glare of commanding names; and particularly when the evil we apprehend, as resulting from it, is not seen in advance by the mere surgeon, as it seldom comes within his province, especially in Europe, where the three grand departments of medicine, physic, surgery and obstetrics, are kept so entirely distinct.

The objections to the suture in these parts are:—1. The irritation they sometimes extend to the whole system, as evinced in Roux's case, in which the patient died from phlebitis or purulent absorption after having had stitches inserted:—2. The transverse bridles they form, and the great obstacles they present to the distension of the perinæum in subsequent labours, which have been so great as to render it necessary for them to be divided by the knife before the child could be delivered. Ramsbotham mentions a striking case of this kind arising from the strong cicatrices following the restoration of a laceration sustained in a previous labour, in which he had to call on a surgeon to divide the cicatrix with a scalpel; and which case affords evidence of the general ignorance or blindness of surgeons to the sequences of these operations; for in this instance, the surgeon frankly acknowledged to Ramsbotham, when called upon to perform this office, his utter ignorance of obstetrical science, and his inability to determine any thing in regard to it; while at the same time, it shows the distinctive office of the surgeon and accoucheur, as Ramsbotham, though distinguished in his art, did not consider himself competent to undertake so trivial an operation as making a simple incision. An accident of this nature requires a surgeon who is an ac-

coucheur of experience, lest he inflict a permanent difficulty to remedy a present inconvenience. Roux, an advocate for the employment of ligatures, says:—"It has not certainly been studied by surgeons with that attention its importance requires." To Dr. Dewees is due the credit of the suggestion which has mitigated the severity of this condition of things, and overcome much of the danger of this alarming obstruction without resorting to the knife, namely, extensive bloodletting. This measure does not, however, entirely overcome the ultimate difficulty, as the same state may recur at every subsequent labour.

As ligatures may occasionally become absolutely necessary, either from the extent of the injury, which renders it impossible to keep the parts *in situ*, or from default of the *vis medicatrix naturæ* affecting reunion, we proceed to detail the different modes employed by the most distinguished operators.

That adopted by the earlier surgeons, was the common or interrupted suture. Most of the writers who advocate this method, acknowledge that in almost every case of any extent, the stitches slough away in the course of a few days, and leave the wound in a worse state than at first, as the ligatures have to be replaced in a highly inflamed surface. This has occurred frequently to our more recent advocates for this practice, by whom the ligatures have been revived; for Merriman tells us, that in his day, it was "sometimes the practice to bring the edges of the wound together by suture; but this has *seldom, if ever*, been attended with good effects; on the contrary the ligatures have been found to slough away, and the patient has, in consequence, *been left in a worse condition* than before. This mode of practice, therefore, is *discontinued*." The same result of these operations is acknowledged by Saucerotte, Dupuytren, Dieffenbach and Roux.

Dupuytren prefers the *uninterrupted* suture: but independent of the great suppurating surface occasioned by the sloughing stitches, it must be attended by great destruction of the edges of the wound, and leave a serrated welt, which presents an insuperable barrier to distension in subsequent labours; a consideration always to be kept in view in these cases.

Noel suggested the *twisted*, or hare lip suture, and for some time it was preferred above the other modes; but it has disadvantages even over the common suture; and we do not find it any more successful than the others, even in the hands of Dieffenbach, who often resorts to both in the same case and at the same time. But in almost every case in which there was the slightest apology to justify their insertion, and in which he used both the *interrupted* and *twisted*, they tore out, at least partially, and left the wound, to a greater or less extent, ununited.

Roux has substituted the *quilled* suture, and reports much success, if leaving large, rounded, pouting cicatrices can be accounted success, in young married women still liable to conception and the accumulated horrors of childbirth to which it subjects them. It must be evident to every one who is practically conversant with this mode of closing wounds, that the lips of

the wound are apt to be everted by the pressure of the bodies placed under the stitches at the sides of the rent, which must add greatly to the welt in the cicatrix, and, subsequently, present an insurmountable obstacle to dilatation in succeeding labours. It has been proposed to superadd the *interrupted* suture to the *quilled*, to keep down the edges. It would scarcely require another duplicature of stitches to render the unfortunate woman's perinæum a complete lattice-work blind, and become as unyielding as the newest patented bridge for railroad viaducts.

Dr. Mettauer, of Virginia, relates an interesting case of ununited paturient laceration of the recto-vaginal septum, successfully treated with leaden ligatures, in the thirteenth volume of the first series of this Journal. He considers them "not only less irritating and less liable to cut out, when tightly drawn than any other material, but infinitely more convenient and effective in maintaining a uniform and perfect apposition, by the ready facility of simply twisting them; and without making any material encroachment upon the margins of the cleft."

Were we compelled to use a suture at all, we should employ the simplest —the interrupted—either of silk, flax thread or the leaden wire, and take the stitches sufficiently deep to hold the wound together for some days; but we honestly believe, that in almost every case the patient is better without them; and that in many instances, they are wantonly, uselessly and injuriously applied. It is admitted, generally, that so long as the sphincter ani is not torn, that nature is competent to the cure, and all that is required, is, that the patient be kept at rest, and the parts properly attended to daily; but the surgeons have an indomitable itching to dip in their needles on the most trivial occasions, as Dieffenbach acknowledges in the codicil of nine cases to his former essay, that he put *two twisted* sutures, at one dressing, in a laceration of the vulva of no greater extent than an *half inch:* while on the contrary Dr. Davis details a case of spontaneous cure, where a complete rupture of the sphincter ani had taken place; and remarks upon these operations, that "when adroitly performed and firmly connected, they have been known in *some rare* cases to succeed: whereas unquestionably, with the best care, they much more frequently fail, in consequence of the ligatures tearing their way out, and leaving the intermediate gap in a worse condition than before." Out of the nine cases just alluded to as having had sutures inserted, by Dieffenbach, *three* were too trifling to require an operation, *two* were from accidents not connected with the parturient state, but simple lacerated wounds; and of the remaining four, only *one* united kindly by the first intention, and the other *three* were found ununited after the removal of the stitches; and of the eleven operations reported by M. Roux, a copious suppurative discharge from the vagina, followed, in all, on the second or third day, and an uneasiness, more or less considerable, was experienced in voiding the urine. A cure was effected in *seven* by a single operation. In one the operation was unsuccessful the first time, but succeeded perfectly the

second time. *Two* of the patients *died*, one from the effects of phlebitis, or of purulent absorption; and the other, (in whom the laceration of the perinæum was complicated with prolapsus of the rectum and of the vagina,) from chronic enteritis, to which she had long been subject. In the remaining case, every thing went on favourably till the *fourteenth day*, when, after a sudden action of the bowels, the adhesion of the united surfaces gave way; a second operation was however *to be* performed.*

Where the rupture extends through the internal septum between the rectum and vagina without involving the sphincter ani, Sedillot proposes to divide the sphincter and establish a complete recto-vaginal fissure before the sutures are inserted: though from his remark on one of Saucerotte's cases we should not suppose that he thinks very highly of the suture, for here he says, that they were "not only of no use but rather to have retarded the process of cicatrization."

One of the principal impediments to success in the treatment by sutures, is the evacuations from the bowels which almost invariably tear away the stitches; and the strictest attention is enjoined to keep them quiescent as long as possible; for which purpose laudanum is freely given to induce and keep up constipation, as this movement whenever it does recur within four or five days after the insertion of the stitches, tears open afresh the ruptured surface and subjects the patient to endure a new series of ligatures, in this highly delicate and inflamed part. Saucerotte saw a case which was torn open, from this cause, on the *eleventh day* after the operation; and it occurred to one of Roux's cases, as we mentioned above, *fourteen days* after it had been stitched, even with the doubly secured *quilled* suture.

Several expedients have been devised to obviate this evil. Saucerotte proposes to introduce a canula of lead, surrounded with a piece of linen covered with balsam Peru, into the rectum, to carry off the contents of the bowels; but notwithstanding all this precaution, he found the stitches give way under the operation of an alvine discharge.

The great object to be attained with surgeons, by the introduction of ligatures, is to cause reunion of the divided sphincter ani, for the sole purpose of restraining the involuntary evacuations of the bowels; but a resort to stitches is not always necessary, as nature is adequate to remedy even this when left to her own operations: which she accomplishes by forming a valve when the sphincter ani does not unite perfectly. "MM. Petit and Gardien," says Burns, "notice the fact that the stools may ultimately come to be retained, but do not seem to be aware that this depends on the formation of a valve. They think it owing to the sphincter regaining its power." To overcome this loathsome state of things until the sphincter regains power, or nature supplies a substitute, Gooch recommends "a truss composed of a circular band of steel which goes round the body just above the

* Medico-Chirurgical Review.

hips; from behind a piece of steel somewhat elastic, and so fixed as to admit of being moved to either side, and incurvates forward between the nates, and then turns a little upwards. At the end of this piece of steel is an ivory ball, on which is placed a sponge sufficiently large to cover the vulvæ, perinæum and anus: when the patients evacuate the bowels they have only to turn it aside."

Young practitioners must be cautioned not to be over anxious to do too much in these cases; for it sometimes happens, that from a great desire to make a perfect restoration of the parts, they may unite it so far as to require another operation, to open it again with the knife, to enable the patient to exercise the legitimate gratifications of the married bed. This happened once to one of the most distinguished physicians of our country, who had to dilate the part with a scalpel; and Dupuytren confesses that it occurred to one of his patients, upon whom he had operated, for this accident, with the interrupted suture, which united so firmly that sometime afterward the woman and her newly married husband applied to him for relief from this embargo on their matrimonial privileges. This may occur readily, though it would scarcely be suspected, the operator not imagining that the cicatrix would extend any further than the wound, and leave the vulva in the original state. It does not, certainly, extend any further than the wounded surfaces, but during the process of adhesion there is a great retraction of the parts with a drawing in of the labia, which contracts very much the entrance of the vagina. The rule to be observed in these cases, is to stop and be satisfied with the union so soon as there is adhesion sufficient to support the contents of the pelvis: for retraction of the parts continues to take place after the adhesive process is fully accomplished.

There is not a case requiring medical attention in which the trite adage is more truly verified than in this accident—an ounce of prevention is better than a pound of cure:—and this position has been, at all times, justly appreciated by those alive to the result; and many efforts have been made to restrain its occurence which it may be proper, *en passant*, to bring to the notice of the reader. Mesnard thought it was only necessary to push the coccyx backward to prevent it, or to insert two fingers between the head of the child and the perinæum, when the head arrives at the vulva. The first is impracticable, in many cases, as the coccyx is sometimes very inflexible; and the second, we apprehend, would only add to the difficulty by increasing the volume which forces fearfully the already over-distended perinæum. The author of the *London Practice of Midwifery*, attributes the accident to the voluntary efforts of the woman in aiding the expulsion of the child, and thinks, that if she could be restrained, it might be avoided;—yea, that if we could only divert her attention so much as "keep her talking, or even to count twenty, she is perfectly free from the danger of breaking her perinæum!!!" Flamant proposes to take hold of the skin of the buttock or poste-

rior part of the pelvis with both hands and draw it forward as much as possible, to relieve the distension of the perinæum, just at the period of the birth of the child. Merriman admonishes the attendant "carefully to abstain from hurrying the head through the os externum, to avoid irritating the vagina and inner membrane of the pudendum, to guard against removing the mucous discharge naturally secreted for moistening the passage; occasionally to introduce lard or tallow to moisten and soften the parts when they feel dry and harsh or heated, and to employ mucilaginous injections; and to keep the hand, covered with a soft napkin, against the perinæum, so as to afford a regular and equal support to the parts during the passage of the head." By vigilant attention to the precautions of the latter writer, most women, under very unfavourable circumstances may be conducted safely through their travail, and be saved the great misery this accident inflicts upon the devoted victim.

When called to a case of labour where there has been a laceration of this kind, which can be readily detected by the absence of the fourchette and the presence of a large cicatrix, and transverse bands from the sutures, acting as bridles, we should lose no time in preparing for the difficulty we shall have to encounter; and in addition to the foregoing suggestions we should use, incessantly, emollient fomentations and relaxing cataplasms—of which the leaves of the stramonium or extract of belladonna, may answer a good purpose, though we have not had an opportunity of trying them. However, these articles may answer or fail, after the cataplasms of *althæ* or *ulmus* have softened the parts in some measure, then warm lard is to be repeatedly applied externally and within the vulvæ, until we find the parts distending gently: but the most prominent and efficient remedy is prompt and copious bloodletting, which produces more relaxation than can be effected by any measure; but which should not induce the attendant to omit the employment of other valuable adjuvants.

Bordentown, N. J., *October 26th*, 1840.