CASE OF INTESTINAL CONCRETION.

By SAMUEL S. DYER, Esq., Surgeon, Ringwood.

George Wills, aged 14 years, October 11th, 1848. Ever since birth he has, more or less, suffered from irregularity of the bowels, the excretions generally consisting of small and hardened scybala. At five years of age he had a more than usually severe aggravation of symptoms, nothing passing his bowels for a fortnight. At this time an artificial anus was proposed by the surgeon in attendance, but objected to by the parents. They have been constantly in the habit of giving him enemata of soap and water, or gruel.

He is now suffering great pain, recurring with greater severity at intervals of a few minutes; nausea, but no vomiting; the abdomen tympanitic, and enormously distended, measuring 39 inches round on a level with the umbilicus. The cavity of the thorax is diminished by upward pressure of the diaphragm, producing dyspnoea. There has been no relief from the bowels for the last three days. No tumour of any kind in either groin; unusual resonance on percussion in each lumbar region. On examination per rectum, I could distinguish, high up, some hardened faeces, and by this means removed as much as I could reach.

Small doses of Sp. Terebinth, with Tinct. Opii, were given to relieve pain and flatulence; and fomentations, and injections of warm water, which, however, returned without any faeculent matter. The long tube of O'Beirne could not be passed higher than five or six inches.

Oct. 12th and 13th. Symptoms continuing; still unable to reach or remove any faeces. Vomiting, hiccup, increasing pain; and early on the morning of the 14th, he died.

Post-mortem 28 hours after death.—Parietes of abdomen very much attenuated; signs of former and recent peritonitis; no enlargement of mesenteric glands. The entire intestinal canal greatly distended with flatus, one convolution alone, ascending, crossing and descending, as large as a man's thigh being all that appeared on turning back the parietes. In the sigmoid flexure of the colon and upper part of the rectum, was an enormous mass as hard as bone; this being removed from its position, and its enveloping intestine opened, appeared a mass of concreted or hardened faeces, measuring four inches long, and nine round, of greenish-brown colour, velvety feel, and covered with thick mucus.

As I know from two years personal experience that this boy had been as large as a woman in the last month of utero-gestation, it is not unreasonable to suppose that such a concretion had existed here, forming an obstruction from that time at least, if not from the date of the illness, nine years since. The pathological and practical questions which are suggested by this interesting case are, first,—What was this concretion? Was it formed of the husks or beards of some grain interwoven and matted together, as detected and explained by Dr. Wollaston and Mr. Clift? Or was it that the fluid part of the faeces had always of late years been absorbed? Its appearance very closely resembled the description of the former as given by Dr. Watson in his lectures, and I should have inclined to the opinion

of this being the true nature of the concretion had not the mother assured me the child had never eaten any oat or barley meal, &c. Next, did the small quantity of alvine discharge come from the lower end of this mass separating, a fresh supply always accumulating above, or could it have remained in the same condition throughout, all excretions passing between it and the bowels?

Presuming no cathartics should be administered, under the almost certain belief that a mechanical obstacle was the cause of obstruction, should more violent means have been made per rectum, for its removal, or should we be justified in exploring the sigmoid flexure with scoops, and such like, or in making an artificial anus, as once proposed in this very case, had the parents consented, with (in addition to the filthy nuisance of such a supernumerary aperture,) the possibility of the recurrence of such symptoms?

MEMOIR ON TURNING, AS AN ALTERNATIVE FOR CRANIOTOMY AND THE LONG FORCEPS, IN DEFORMITY OF THE BRIM OF THE PELVIS, &c. &c.*

By J. Y. SIMPSON, M.D.,

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SECTION IX.—ON THE COMPARATIVE DANGER OF LOCAL LESIONS OF THE MATERNAL ORGANS (VAGINA AND UTERUS.) IN DELIVERY BY TURN- ING, AND DELIVERY BY INSTRUMENTS.

As far as the observations in the preceding section go, they refer to the comparative degree of actual danger to the life of the mother under the opposite means of treatment, by which cases of labour, with arrestment of the head, and distortion of the pelvic brim, may be treated. They refer merely to the question of the probable death or probable survival of the mother, under the two different lines of practice spoken of,—viz., delivery by instruments, and delivery by turning. But it is possible, that, under such a form of labour as we have been considering, the mother may survive, that she may escape with life, and yet the maternal passages and neighbouring soft parts may be so much damaged and injured, as to interfere, in a more or less dangerous or distressing manner, with the state of her future health and future happiness. The cervix uteri, or the walls of the vagina, are sometimes so contused, or become so inflamed, that gangrene and sloughing supervenes, and lead on to the formation of cicatrices and strictures; or, what is still more deplorable, this resulting gangrenous inflammation may produce fistulous communications between the vaginal canal, and the rectum, or urethra, or bladder. No consequence could be possibly more deplorable than this last,—the occurrence of recto-vaginal or vesico-vaginal fistulae.

Speaking of sloughing of the urethra or neck of the bladder, as a consequence of severe labour, Dr. Collins remarks, in words dictated by the best possible feelings: "I do not know of any occurrence more calculated to render the patient's life one of endless sorrow; or, at the same time, more likely to cause the practitioner such lasting regret. When it unfortunately happens (as in some instances is unavoidable,) in consequence of the protracted length to which we are at times compelled to permit the labour to proceed, owing to great difficulty in the passage of the head, the child being *alive*, here the medical attendant's mind cannot, on his *own* account, feel distressed, as the *only* means he could adopt to guard against the danger would be to lessen the head, which, in my opinion, no consideration should induce him to do under such circumstances."*

Are such distressing results as Dr. Collins here describes more liable to occur under the present practices of delivery by instruments, or under the new practice which I propose of delivery by turning? In other terms the question which I wish to consider is this:—

Are Local Lesions from Inflammation of the Vagina, such as Sloughing, Fistulæ, &c., more liable, in a Contracted Pelvis, to supervene after Delivery by Turning, or Delivery by Instruments?

Vaginal inflammation terminating in sloughing, cicatrices, and fistulæ, is not unfrequently observed after protracted labours that are terminated by the forceps or crotchet. In his "Clinical Midwifery," after detailing "the histories of fifty-five cases of difficult parturition in which the forceps was employed," Dr. Lee remarks, (p. 32,) "Five of the mothers whose cases have now been related died from puerperal convulsions, and four from the rash and inconsiderate use of the forceps; seven had the perineum more or less injured; one the recto-vaginal septum torn; five were left with cicatrices of the vagina after sloughing; and one with an incurable vesico-vaginal fistula." After describing the histories of sixty-five cases of "difficult labours from distortion of the pelvis, swelling of the soft parts, convulsions, hydrocephalus in the fœtus, and other causes in which delivery was effected by the operation of craniotomy," Dr. Lee again observes (p. 59,) "In thirty-eight of the cases in this report, the labour continued from forty to seventy hours. In the cases of spontaneous rupture of the uterus and convulsions only was the delivery effected before the labour had lasted upwards of thirty hours. In a very large proportion of the cases, the difficulty arose from distortion, or a contracted state of the pelvis. Rupture of the uterus took place in three before perforation, and the inflammation and sloughing of the uterus, vagina, and bladder, which proved fatal to eight others,

were chiefly or solely produced by the long-continued violent pressure on the soft parts by the head of the child before it was opened and extracted. In those who recovered with vesico-vaginal fistulæ, or contraction of the vagina from cicatrices, the unfortunate occurrences arose from craniotomy being too long delayed."

In the table which I have previously given from the same author (see Table IX.) of the results of 87 cases of craniotomy, local lesions on the part of the mother are noted as having occurred in several instances. Out of the 87 cases, eight,* or about 1 in every 10, suffered from vaginal inflammation and sloughing; four,† or nearly 1 in every 20, were left with vaginal fistulæ.

On the other hand, I am not aware of a single recorded instance in which vaginal sloughing and fistula ever followed transverse presentations of the fœtus, and where the delivery is, as a general rule, always accomplished by turning. Two circumstances lead to this immunity:—

1st. In presentations of the arm and shoulder the presenting part does not so completely fill up and compress the tissue of the brim as in head-presentations. Hence both the tendency to, and the occurrence of, congestion of the vessels and inflammation in the tissues, situated below the site of the compression,—viz., the vagina, &c., is far rarer. But,—

2ndly. The delivery is always, or almost always, accomplished early in the labour, and no doubt the mere length and protraction of the labour is one of the great, if not the greatest, predisposing and exciting causes of gangrenous inflammation and sloughing of the vagina.

In many cases vaginal sloughings and fistulæ have been attributed to the use of instruments, when they were more truly owing to gangrenous inflammation and sloughing, ensuing in consequence of the delay that was allowed to occur before instrumental delivery was adopted. In the history of most instances of vesico-vaginal and recto-vaginal fistulæ following labour, there is one simple fact, proving that they are not the direct effect, as is too often supposed, of lesions and lacerations by the forceps or crotchet. If vesico-vaginal fistulæ were, in this way, the direct effect of injuries produced by cutting with the instruments, then escape of urine through the vagina would be observed immediately after labour. But this is rarely the case; the general fact being, that the escape of urine through the false opening between the urinary and vaginal canals, is not seen for several days after delivery; because it is not till several days have elapsed that the gangrenous slough in the parietes of these canals separates. No soft parts, any more than the maternal canals, could stand, without endangering their vitality, the steady pressure upon them for twenty or thirty hours of a firm body, such as that which the

* Practical Treatise, p. 359.

* See Cases x., xx., xxx., xxxii., lvii., lviii., lxi., lxxiv.

† See Cases i., lii., liii., lxiv.

detained foetal head exerts in contracted pelves upon the two points of contraction,—the symphysis pubis before, and the promontory of the sacrum behind. It is not a matter of wonder that the soft structures compressed at these special points between the foetal head and maternal bones, should sometimes inflame and slough. It is, perhaps, surprising rather, that this consequence does not follow oftener. On this point Dr. Beatty, of Dublin, makes one or two remarks of such importance, that I will offer no apology for quoting them at length. "With respect (says he,) to laceration and sloughing of the vagina, bladder, &c., stated by some authors to be caused by the forceps, and used as an argument against their employment, I am of opinion that in the majority of cases, when these lamentable results occur, the blame is unmerited; because I have seen the worst inflammation and sloughings of these parts follow in cases where the perforator had been used, and even in some where no instrument whatever was employed. The truth is, the mischief is effected by the pressure of the infant's head upon the soft parts of the mother, and after this has been continued with sufficient intensity, for a sufficient length of time, the inflammation caused thereby will run its course, no matter in what way delivery is accomplished, whether by the natural efforts or by instruments. But it frequently happens that delivery is effected in these cases by instruments, *too late* to prevent the unhappy results alluded to, and then the operation is charged with the consequences. If an accurate account of the subsequent condition of all women after delivery could be obtained, I much fear that the histories of those cases in which labour had been allowed to run too long before interference was used, would be anything but satisfactory. The lamentable sloughings of the vagina, with subsequent closure of the passage by the process of cicatrization, or the still more distressing sloughing of the bladder, with its attendant urinary fistulæ, are seldom mentioned in lying-in hospital reports, because the patients are usually removed from those institutions *before* such results have become very apparent; and thus, a case left to nature, in which delivery is effected by the natural efforts, is set down as a favourable one, without any notice of its consequences."*

Dr. Beatty elsewhere soundly and correctly remarks in regard to the causation of gangrene and sloughing, &c., of parts of the vaginal walls by the pressure of the child's head, "that it is the *continuance* of the pressure that does the mischief rather than its *intensity*. We know that the soft tissues of the body are endowed with a resiliency—a power of resistance that enables them to bear a temporary compression of great amount without injury, while inferior pressure continued for a length of time will terminate in their disorganization. The malingering soldier is well aware of this fact, and acts upon it when he wishes to produce an ulcer. He

straps a piece of coin or other hard substance tightly upon the part. At first no effect is produced, and if the apparatus is removed in a short time, there is no evil consequence; but if the same amount of pressure is continued for some hours, such a degree of injury is inflicted as terminates in the destruction of the part, and a sloughing ulcer is the result."*

That the mere morbid protraction of labour is the great predisposing cause of gangrenous inflammation and sloughing of the vagina (as suggested in these remarks,) is shewn by Dr. Collins' results. Dr. Collins has recorded the duration of the labour in six cases where sloughing of the vagina was detected after death. The following table shews that the accident occurred in an immensely greater proportion in prolonged than in short labours; and that, consequently, protraction is, as I have just stated, almost a necessary antecedent to the occurrence. The case, I may remark, in which sloughing followed a labour less than twenty-four hours in duration required instrumental delivery, but the mode of delivery, whether by the crotchet or forceps, is not specialized by Dr. Collins. (See *Practical Treatise*, p. 358.)

TABLE XIV.

Duration of Labour in six Fatal Cases of Sloughing of the Vagina.

<i>Length of Labour.</i>	<i>Number of Deliveries.</i>	<i>Number of Cases.</i>	<i>Proportion of Cases.</i>
Within 24 hours	15,586	1	1 in 15,586
Beyond 24 hours	264	5	1 in 53

If, as these data shew, the protraction of labour is a main and almost necessary element in the production of gangrenous inflammation of the vagina, it is equally evident that turning, in the class of cases we are considering, while it frees the mother from the danger of a fatal termination, (as shewn in the last section.) would at the same time free her also from the chance of suffering from these *local* complications that are apt to follow upon protracted labours.

In the passage which I have quoted from Dr. Collins, at the commencement of the present section, that experienced practitioner laments our being occasionally compelled to subject our patients to the chance of local dangers and complications, in consequence of our being compelled, in some unavoidable instances, to allow the labour to proceed onward to a protracted degree, from the child being still alive, "for then the *only* means the practitioner could adopt to guard against the danger would," says Dr. Collins, "be to lessen the head, which, in my opinion, no consideration should induce him to do, under such circumstances," viz., as long as the infant is still living; The proposition which I have made of turning in such instances resolves the difficulties attending upon them in two

* Dublin Journal of Medical Science, Vol. xii., p. 290.

* Dublin Quarterly Journal, Vol. xxi., p. 344.

ways. For, *first*, it enables us to deliver the patient early and at once, and thus frees us from the dread of these consequences of protraction; and, *secondly*, the continued vitality of the infant would, under the treatment by turning, not be a reason and incentive for our dangerously delaying the delivery, but would form a strong reason and incentive for our proceeding with the practice at as early a period as was proper and possible. The details of a case or two may enforce these observations; and I shall select some from Dr. Collins, calculated both to illustrate these remarks, and to shew, that in protracted labours, occasionally *before* the time that the child does at last die, the dreaded amount of local mischief has been accomplished, so that if we waited always for the certainty of the infant's death, in order to deliver by craniotomy, we should wait beyond the time that was necessary, in order to save (locally,) the maternal structures from inflammation and gangrene.

It will be remarked, that in the first of the following instances, the foetal heart was heard six hours, and in the second case, eight hours, before delivery, and consequently ceased some time between these periods and the period at which the perforator was used—in short, necessarily not long before craniotomy was practised. Consequently we have here cases which, in the severity of their local, and, I may add, in the severity also of their general symptoms, shew what I have before argued, that the mother may herself be assuredly placed in the greatest possible danger and hazard from the protraction of the labour, before that protraction kills the child. I may add that, in the first case, the position of the foetal heart,—viz., in the right iliac region, shewed the infant to be in the occipito-posterior position, (the third position of Nägele.)

CASE XXXVI.—“No. 126. This woman was fifty-nine hours in labour; it was her first child. The pains were for a considerable time very trifling, with long intervals; however, for the last twenty-four hours the uterus acted with tolerable regularity, the pains being at times strong, causing the head to press with much force against the ischia, where it remained stationary for the greater part of that time. Her pulse was very much increased in frequency, varying between 120 and 130; the external parts were oedematous. As the foetal heart had ceased to act, having been distinctly audible in the right iliac region six hours before, the head was lessened, and the crotchet applied. The placenta was expelled in forty-five minutes, immediately after which, in consequence of hæmorrhage, the hand was introduced, and so it was arrested. Violent inflammation and sloughing set in, resisting all treatment, and she died on the 9th day. For four days previous she had severe diarrhœa, a succession of motions coming on suddenly, with severe pain; she had also severe hiccough. On examination after death, the vagina was found in a state of slough; the sides opposite the spines of the ischia were broken through with the slightest force, and were completely gangrenous. A circular opening the size of a shilling was found, forming a communication between this cavity and the rectum, the mucous

surface of which, as also that of the colon, was softened, and had, in the vicinity of the opening, a gangrenous appearance. There was no symptom of inflammation in the peritoneum or uterus.”*

CASE XXXVII.—“No. 1091. Was admitted August 23rd, in labour of her first child, and was not delivered until the 25th, being a period of fifty-six hours. Uterine action from the commencement until within six hours of the expulsion of the child, was extremely feeble, with long intervals. The head remained high in the pelvis, and although the ear could not be reached, it was evident the head had sufficient room to pass; to effect which, uterine action was alone wanting. As soon as the pains began to be brisk the labour proceeded without difficulty. The foetal heart was quite audible until eight hours previous to the birth. In three hours after the hand was passed to remove the placenta, it was found separated, and without the slightest effort the uterus contracted and expelled both. The perineum had suffered considerably in the passage of the head. The patient never seemed to rally after delivery; the pulse continued quick; there was considerable tenderness on pressure over the uterus, with a foul discharge from the vagina. * * * On the 7th and 8th she had distinct rigors, followed by perspiration, after which her strength became greatly reduced. The vaginal discharges continued foul, notwithstanding the most rigid attention to cleanliness and the use of stimulating injections. She gradually sank and died on the 11th day, having for two days previous suffered from frequent hiccough. On dissection, the only morbid appearances found, were in the bladder and vagina. In the bladder, the mucous surface was covered with yellow lymph, and it contained a quantity of muco-purulent fluid. In the vagina, opposite the right ischium, a portion appeared to have been destroyed by slough.”†

Hitherto, under the present section, I have spoken of the dangers which the mother may avoid by employing the operation of turning as a substitute for instrumental delivery, in cases of contraction of the pelvic brim. But while turning enables us, as I have shown, to eschew some of the gravest and most imminent dangers connected with the use of the long forceps and crotchet, it is on the other hand, by no means to be forgotten, that it subjects the mother to one great form of danger, from which, in common belief, she would be comparatively free under the adoption of instrumental delivery. The special maternal danger attending upon turning is *laceration or rupture of the uterus*, confessedly the most fatal complication that can occur in connection with delivery. Is the liability to rupture under turning so great as to make us avoid this practice and trust rather to the forceps and crotchet? Or, in other words,—

Is Rupture of the Uterus in Contracted Pelvis, much more apt to be produced by Delivery by Turning than by Delivery with Instruments?

Most authors describe laceration of the uterus as

* Practical Treatise, p. 158.

† Practical Treatise, p. 483.

one of the principal hazards which the mother runs in cases of turning. But injury and laceration of the uterus are perhaps not so liable to follow this operation as is generally imagined. "Between the years 1823 and 1834, (says Dr. Ramsbotham,) I delivered more than one hundred and twenty women under transverse presentations; independently of a few cases to which I was summoned where spontaneous evolution occurred. Many of these cases presented a formidable appearance; for in one the membranes had been ruptured a whole week; in another, sixty-nine hours; in a third, fifty-eight hours; in another fifty-five; in another, fifty-three; and in many, more than forty-eight; and as a general principle, we presume that the longer the liquor amnii has been evacuated, the more likely is the uterus to have embraced the fetal body firmly, and the more difficulty will there be in overcoming the resistance. In none of these cases did I exhibit large doses of opium, and in those few where bleeding was practised, that operation was had recourse to, not for the purpose of relaxing the uterine fibres, but to relieve the inflammation which the soft structures were suffering, and to remove tumefaction. *In not one of these instances was any injury inflicted on the uterine structure; nor did any permanent evil arise that could be attributed to the operation.* In four cases only was the uterus so powerfully contracted as to refuse admittance to the hand, and compel me to adopt the alternative of exsuscating or decapitating the fœtus."*

Besides, that injury of the uterus is thus not so apt, as is perhaps generally imagined, to follow upon turning when carefully and cautiously performed, there are other considerations, which are calculated strongly to shew that the danger of laceration in the cases of pelvic contraction, most fitted for the practice we suggest, is not much, if at all, increased by the proposed operation. I shall state the considerations to which I shall refer.

In the *first* place, I would premise this important remark, that (according to all our best obstetric pathologists,) those degrees and forms of morbid contraction of the brim of the pelvis which I deem to be the cases best adapted for delivery by turning, are exactly those cases on which, under any plan of management, (whether the patient be delivered by the natural efforts, or by the forceps or crotchet,) rupture and laceration are exceedingly apt to take place. On this subject I am anxious to adduce full evidence, and will consequently appeal to the unprejudiced testimony of Ramsbotham, Denman, Churchill, &c.

"Laceration of the uterus (says Dr. Ramsbotham,) is most likely to happen to a patient who has had three or four children, who possesses a slightly distorted pelvis, and who has been in strong labour for a number of hours. Although (he further observes,) the same rent may take place in any portion of the organ,

its most frequent seat is at the neck, either at the posterior part opposite the prominence of the sacrum, or anteriorly, behind the symphysis pubis. The direction is also mostly transverse, or slightly oblique. It is not difficult to account for this being the most usual situation of the injury; for since, during the latter part of gestation, the neck of the womb rests upon the pelvic brim, if the promontory of the sacrum dip too far forward, or the ridge of the pubes be preternaturally sharp, it is reasonable to suppose that the uterine structure may be affected, that inflammation may occur as a consequence of pressure, and that a thinning or softening of the substance may be induced, and, under these circumstances, should the structure give way at all, it is likely that the weakened part will be the first to suffer. Denman, indeed, says that, independently of disease, the uterus may be *worn through* mechanically, in *long* and *severe* labours, by pressure and *attrition* between the head of the child and the projecting bones of a distorted pelvis, especially if they be drawn into points, or a sharp edge. One or other of these causes may explain (Dr. Ramsbotham concludes,) why we more frequently meet with laceration of the uterus, when the pelvis is *slightly* contracted in the conjugate diameter of the brim, than when the distortion is *excessive*."* And he adds one case. "In one of the last cases" says he "of ruptured uterus to which I was called, dissection shewed that the linea ileopectinea, where it traverses the pubes, was formed into a very sharp ridge, that there were a number of bony prominences jutting from the inner surface of the pubic bones towards the cavity, and one, especially, situated above the left thyroid foramen, which was so pointed as to pain the finger when hard pressure was made on it. The sacro-pubic diameter was two inches and three quarters in extent. It was the woman's second pregnancy; the first child had been delivered by craniotomy. After a consultation held, labour on this occasion was induced in the eighth month by the exhibition of four doses of the ergot. The membranes broke spontaneously three hours and a half before the accident occurred. I was sent for by the gentleman in attendance, immediately, and delivered by turning; she died on the night of the fourth day."†

Dr. Churchill expresses similar views in regard to contraction of the pelvis as a cause of rupture. "A certain amount," says he, "of narrowing of the upper outlet, may give rise to it. This is a purely mechanical cause. The head of the child is forced down by violent labour-pains, but is unable to enter the pelvis, from the contraction of the upper strait. Now, if the pains continue with great power, the head is turned to one side or the other, or posteriorly, and the only obstacle here being the uterine or

* Obstetric Medicine and Surgery, p. 350.

* Obstetric Medicine and Surgery, p. 469.

† Principles of Obstetric Medicine and Surgery, p. 469.

vaginal parietes, the head is drawn through them at the weakest part. They offer the less resistance, probably from the woman having borne several children.”*

Other authorities might be adduced to the same effect,—viz., that rupture of the uterus is especially liable to happen under protracted labour or instrumental delivery, when the brim of the pelvis is slightly contracted,—that is, in exactly the class of cases most likely to be adapted for delivery by turning.†

In the *second* place let me observe that, while contraction of the pelvic brim is thus acknowledged to be a strong predisposing and exciting cause of rupture, it must, at the same time, be held in view as a most important correlative fact, that it seldom does lead to laceration of the uterus, unless the effects of its mischievous agency are allowed to be combined with, and increased by, a morbid degree of prolongation and protraction of the labour itself. Dr. Denman's observation is, doubtlessly, so far, quite true, as to the possibility that the “uterus may be *worn through* mechanically, in long and severe labours, by pressure and *attrition* between the head of the child and the projecting bones of a distorted pelvis, especially if they be drawn into points, or a sharp edge.”‡ In fact the liability to rupture, like the liability to most other obstetric complications, increases progressively with the increased duration of the labour, as the following table, calculated from Dr. Collins' returns,§ sufficiently attests:—

TABLE XV.

Duration of Labour in 24 Cases of Rupture of the Uterus.

<i>Length of Labour.</i>	<i>Number of Deliveries.</i>	<i>Number of Cases of Rupture.</i>	<i>Proportion of Cases of Rupture.</i>
Within 6 hours	13,412	7	1 in 1,916
From 7 to 24 hours	2,174	10	1 in 217
Above 24 hours	264	7	1 in 38

The principle inculcated by the evidence of this table is so important in its bearing upon the practice suggested in the present memoir, that I shall take an opportunity of enforcing it by adducing three instances of distorted pelvis, in which laceration of the uterus took place after the labour had been allowed to become

protracted; and that, though the mode of ultimate delivery in each of the three was different,—in the first being effected spontaneously, in the second by instruments, and in the third by turning.

CASE XXXVIII.—“No. 22. On the fifth day after delivery, without any apparent cause, was seized with violent hæmorrhage. When we saw her, which was immediately after, no pulse could be felt, and, though most prompt and active measures were employed, she died in less than an hour. She had been delivered, by the natrnl efforts, of a living child, after a labour, not very severe, of forty-eight hours; nor from that time was there distress of any kind perceptible.

On dissection, the abdominal viscera appeared healthy, as did the uterus, at first sight, but on raising it out of the pelvis, about the size of a shilling of its muscular substance, corresponding to the projection of the sacrum, was found to have given way, the peritoneal covering remaining uninjured. There were two spots in the vagina approaching to a state of slough.”||

CASE XXXIX.—“No. 28. The labour pains in this case were feeble, yet the child continued to advance. The heart's action was audible with the aid of the stethoscope, the mother's pulse natural, and no unpleasant symptom. Suddenly, however, the most alarming debility came on, the pulse being scarcely perceptible, accompanied with vomiting and much pain on pressure over the uterine region. Immediate delivery was necessary, and the perforator was used. She was a feeble delicate woman, was thirty-six hours in labour previous to the setting in of the above symptoms, and had been force-delivered eleven months ago. She died in fourteen hours.

“On dissection, an opening was found at the junction of the uterus with the vagina, (exactly opposite a projection of the last lumbar vertebra,) not larger than to admit the passage of one finger. The muscular substance of the uterus, anteriorly, had also given way to a considerable extent, the peritoneum being whole. The pelvis scarcely measured three and a half inches from pubes to sacrum.”¶

CASE XL.—“A patient with her spine somewhat curved, and who, in her first confinement, had borne a dead infant, after several days suffering, was taken in labour of her second child, early on the 16th November, 1846. The pains had been constant and strong for about thirty hours, when I saw her, with Dr. Gordon, who had been called in, and the head had remained stationary and fixed at the same point of the brim for the last twenty-four hours. On examination, Dr. Gordon and I found the pelvis small, the os uteri

* Theory and Practice of Midwifery, p. 408.

† See, for example, Dr. Robertson, (Edinburgh Med. and Surg. Journal, Vol. xlii., p. 61,) “In a great majority of instances (says he,) of slight contraction of the inlet, in perhaps three cases out of four, the diminution of space is caused by the promontory of the sacrum encroaching upon the antero-posterior diameter. On this ground, perhaps, we may explain why, in a somewhat greater number of cases of laceration, the rent is found in the posterior, rather than the anterior, part of the uterus.”

‡ Out of 300 cases of rupture of the uterus, reported by Dr. Trask, (“Monthly Journal and Retrospect” for August, p. 178,) contraction of the brim of the pelvis was found

noted as existing in sixty cases. Drs. McClintock and Hardy, in their excellent work on “Midwifery,” observe, in regard to the pathology of rupture, (p. 295,) that the accident is more likely to be produced “where the deformity of the pelvis is *slight*, than where it is *excessive*,”—that is, in precisely those cases best fitted for turning.

§ Ramsbotham's Principles of Obstetric Medicine and Surgery, p. 469.

¶ Dr. Collins met with 34 cases of rupture during his Mastership. In 24 out of the 34 he has given the duration of the labours in a table in his “Treatise,” p. 307.

|| Dr. Collins' Practical Treatise, p. 287.

¶ Dr. Collins' Practical Treatise, p. 300.

fully dilated, and the head of the infant imperfectly entered into the brim, and apparently uninfluenced in its descent by the powerful uterine contractions that were present. The sutures of the foetal head were strongly overlapping, and a triangular portion of the foetal cranium terminating in the posterior fontanelle was driven deeply in and below the level of the two other portions of bone that went to the formation of that fontanelle. On first touching the head I thought this indented bone was, as usual, the occipital, but a more careful examination showed me that it was the left parietal bone, and that the head presented its right side, instead of the vertex. The head, though thus greatly compressed transversely, still filled very imperfectly the pelvic brim, and the right side of the pelvis was so unoccupied as to allow a long loop of the umbilical cord to prolapse. The vessels of the cord were beating, shewing the child to be still living. The local and constitutional symptoms under which the patient was suffering shewed the necessity of immediate interference and delivery; but how was the delivery to be accomplished? The mass of the head was too high above the brim to allow of the successful use of the long forceps, even if there were space sufficient (which was very doubtful,) in the contracted pelvis to allow of the head passing in this form. The perforation and breaking up of the head by craniotomy would allow of delivery, but the cord showed the child to be alive, and I had doubts here, as in other cases, of the propriety of murdering the infant, when delivery by other means was possible; the other remaining means consisted in its extraction by turning, and, with Dr. Gordon's consent, I proceeded to deliver the patient by this operation; it was accomplished without much difficulty. The child was still-born, but was recovered by the usual means of resuscitation; it survived, however, only a few hours. That part of the scalp covering the parietal bone, which had infringed so long on the promontory of the sacrum, remained depressed, and pitted like an umbilical mark; the left parietal bone itself remained also deeply displaced, and indented below the corresponding edges of the occipital and right parietal, and on dissection some blood was found effused beneath it. The mother continued well for a few hours, but then began to sink with symptoms of abdominal effusion and rupture. She died on the following day. On dissection, the neck and lower part of the body of the uterus were found lacerated, and at one part the oblique and valvular-like laceration extended through the peritoneum. The pelvic brim was obliquely ovate in form, the right side being much larger than the left, but the conjugate diameter of the brim was very narrow. At its most contracted point a piece of wood wedged in between the promontory of the sacrum and the nearest point of the pubis, measured only two inches and seven-eighths. The pelvic joints felt loose and mobile.

The observations which I have adduced in the preceding pages seem then to point to the following deductions:—

First. Morbid contraction of the pelvic brim is whatever mode of delivery is adopted, liable to be a cause of rupture of the uterus.

Secondly. This morbid contraction principally and

almost only becomes a cause of rupture, when in conjunction with it, the labour, as in the three cases just now detailed, has been allowed to become long and protracted in its duration, and the compressed tissues of the cervix are consequently rendered preternaturally friable and lacerable. Then,

Thirdly. It necessarily follows, that this complication would in all probability be avoided, (when morbid contraction of the pelvis exists,) provided either nature or art was enabled to deliver the patient early, and did not permit of the tissues of the lower part of the uterus becoming wedged in, contused, inflamed and softened, between the presenting head of the infant and the opposing points of contraction in the pelvic brim. Hence a power of artificially terminating labours with this complication as soon after their commencement as the dilatation or dilatability of the passages would allow, would be, so far, a means of averting this fearful accident under these circumstances. In the delivery by the operation of turning, we possess such a power; and by the exercise of it in these cases we may, I believe, not only sometimes save the mother from danger, but the child also from death. And I have already shewn at sufficient length, that the degree of force required to extract the head, will depress and groove the cranial bones of the child without necessarily injuring or tearing the soft pelvic tissues of the mother; provided always these tissues have not been previously brought into a state of congestive and inflammatory friability by the previous duration of the labour, and by the impaction of the head having been allowed to be prolonged to an excessive and morbid degree. All the evidence which I have adduced in different parts of the present memoir, goes to shew this fact,—that the danger attendant upon turning and other modes of operative delivery is, as a general law, regulated less by the mere performance of the operation, than by the mere degree of protraction allowed to elapse before operative interference is adopted. And, in addition, the evidence which was brought forward in the last section appears to entitle us to deduce as a supplement or corollary to this important general law, that, (supposing the maternal passages are once dilated or dilatable,) when operative delivery by the forceps, or crotchet, or turning, is accomplished with *comparative force*, it is safer, *ceteris paribus*, to the mother when performed early, than the same or other modes of operative delivery would be if accomplished with *comparative facility*, but performed late;—that, in other words, force is less dangerous than protraction;—that the hazards of operative delivery are more regulated by the time of its adoption than by the difficulties of its accomplishment.

Fourthly. It must still be held constantly and prominently in view that, in the proposed practice of turning, the great maternal danger which the practitioner has to avoid, is injury and laceration of the uterus, and he

must use all due care and caution to avert any chance of this accident. The preceding observations shew some of the leading points and objects which he should attend to, in order to avoid it. These points are, principally,—1, the early performance of the operation; 2, when possible, (as in Case I.) it should be effected even before the membranes rupture, as turning is greatly more easy and more safe before than after the evacuation of the liquor amnii; 3, if the liquor amnii has escaped, and the uterus has contracted, the uterine fibres should be previously and perfectly relaxed by the use of opium or chloroform; and, 4, the part of the operation consisting in the actual turning and version of the child, should be done with extreme caution, and only and always attempted and accomplished during a perfect interval between two uterine contractions.

Other requisite rules and precautions are enumerated so fully in most obstetric works, and so well known to obstetric practitioners, that it is perhaps unnecessary to dwell here at greater length upon them.

(To be continued.)

Hospital Reports.

CUMBERLAND INFIRMARY, CARLISLE.

SURGICAL CASES UNDER THE CARE OF W. B. PAGE, ESQ., SURGEON TO THE INFIRMARY.

(Communicated by E. THOMAS, Esq., House-Surgeon.)

FOOT TORN OFF, AND WITH IT THE FIBULA, AND MOST OF THE MUSCLES OF THE LEG; RESISTING POWER OF THE VARIOUS PARTS; AMPUTATION OF THIGH; PHLEBITIS: POST-MORTEM APPEARANCES.

John S., aged 40, a pilot, was admitted into the Cumberland Infirmary, under the care of Mr. Page, about midnight, November 5th, 1848.

Five hours before his admission, while engaged at the stern of a steam-vessel, letting out a rope which had become in some way connected with another vessel which was passing, his right foot became entangled in a coil of the rope, and in an instant, (his body being firmly fixed by the bulwarks,) his leg was dragged off with such violence as to be carried near the bows of the vessel. A cart having been procured he was placed in it and brought to the infirmary, a distance of twelve miles. When admitted, he was blanched, cold, and prostrate, the quantity of blood which he had lost on the road was great, and the amount of hæmorrhage on board the vessel was stated to have been very considerable. His only complaint was of excessive pain in the lower part of the back, where no trace of injury was apparent. He was at once put into a warm bed, and heaters were applied to the sound foot, the back, and abdomen, oozing of blood continuing to take place. In about an hour after his admission,

Mr. Page removed the limb, four inches above the knee by the double flap operation.

The state of the limb was as follows:—The skin of the leg was uninjured, and hanging loosely down around the tibia, which was entire, presenting somewhat the appearance of a trowser around a wooden leg; behind the bone, and nearly of equal length with it, hung the post-tibial nerve. The tibia was quite bare on its anterior surface, and posteriorly and externally to within four or five inches of the knee. The two heads of the gastrocnemius retained their bony attachments, the lower end of that muscle was much lacerated where it had become detached from the tendo Achillis. The foot was still in the boot, a sort of highlow, the skin was ruggedly torn around the ankle, and attached to the foot was the fibula and most of the muscles of the leg. The fibula was separated from the tibia at its superior articulation, and was fractured about an inch above the ankle; in front was the tendon of the tibialis anticus, having connected with it the greater part of the belly of that muscle, and the tendons of the extensor pollicis proprius, and extensor longus digitorum. Behind, was the tendo Achillis, with the whole of the soleus and a small part of the gastrocnemius, and the tendon of the plantaris, with the belly of that muscle attached. The tendons of the flexor digitorum longus, of the tibialis posticus, and of the flexor pollicis longus, as also that of the peroneus longus had connected with them the whole of their respective muscles; those of the peronei brevis and tertius had no muscular fibre attached.

Although almost pulseless while on the table, he revived somewhat shortly after his return to bed, and as he continued to complain much of the lumbar pain, a drachm of laudanum was given him. During the night he had some sleep; throughout the day he took as much nourishment as was desired, and gradually rallied. The pain in the lower part of the back was a frequent cause of complaint, and was considered to be dependent upon the tension and laceration to which the great sacral nerves had been subjected.

November 5th. Slept tolerably through the night, without opium; occasionally disturbed by startings in the stump; complains much of his back; takes his food well.

6th. Appears going on well.

7th. Had scarcely any sleep through the night; still complains much of the back, but not at all of the limb. Stump dressed; it has a doughy unhealthy appearance; discharge thin and fetid. Water-dressing applied. Liquor Opii, forty drops at bed-time.

8th. Had a good night; stump more swollen; cutaneous veins much congested; has great difficulty in swallowing and speaking, from a circumscribed swelling beneath the chin, and bulging into the mouth on either side of the frænum lingue. Has much pain in the second joint of left thumb, extending up the arm; had a shivering fit; tongue dry; wanders a little; pulse very frequent; breathing short and hurried; extremely anxious and irritable. Opiate at bed-time.

9th. Had a very restless night; joint of thumb red, swollen, and painful. Has much pain in both arms, so that he cannot bear them to be moved. Stump more