

tions in the minute), and quite regularly. The systole and diastole follow each other with tolerable rapidity, and then a long pause takes place. This diminution of the frequency of the pulse is the more remarkable, since we yesterday burnt a moxa on the precordial region, which, it might be supposed, would rather have accelerated the pulse. The cathartic may be continued.

17. The medicinal effect of the digitalis has now ceased; the pulse beats 64 times in the minute; we do not find in it the same regularity as during the action of the digitalis, but by no means the irregularity which formerly existed. The subjective phenomena about the heart have disappeared, but the objective or physical ones remain the same. The effect of the cathartic is as favourable as can be wished, and in consequence the objective, as well as the functional symptoms of the liver complaint, have entirely disappeared. Perspiration and urine natural; the dropsical phenomena entirely gone. The scab produced by the moxa has separated; we shall keep the place open for some time.

The patient was transferred to another ward.

## ORIGINAL COMMUNICATIONS.

### OBSERVATIONS ON THE PRACTICE

OF

#### ARTIFICIALLY DILATING THE OS UTERI.

By JOHN BREEN, M.D., formerly Assistant-Physician to the Lying-in Hospital, Dublin.

HUMAN experience, which is constantly accumulating, when accurately recorded, is the great test of truth, and the most certain guide in all practical inquiries.

Having been for many years collecting facts to illustrate the management of tedious parturition, for a considerable time it had been my intention to have published a distinct essay on the subject. This intention I announced in April, 1835, at an evening meeting of the Irish College of Physicians, in a paper read before that body, on the Obstetric Extractor, generally denominated the Midwifery Vectis, and published in the seventh volume of the "Dublin Journal of Medical Science." So many excellent works on midwifery have recently appeared, and so many eminent men are engaged in teaching this art, and so much diligence and zeal are displayed by writers and teachers in availing themselves of every source of information, that I have changed my intention, as I am now of opinion that a few papers in one of the medical periodicals will answer my chief object, that of showing that I have not passed a long series of years in obstetric practice without endeavouring to contribute to its improvement.

Unquestionably the point of most interest in the investigation is, whether the following assertion of Dr. Hamilton, as to the result of this practice, will be found equally successful by other practitioners giving it a fair trial, and as universally applicable, or nearly so. His statement is, that by adopting the rule of securing the completion of the first stage of labour within twelve or fourteen hours, no patient under his charge, for the thirty-five years antecedent to his publication, has been above twenty-four hours in labour, and, except in cases of disproportion, none so long.

Since the universally beloved youthful sovereign of these realms, whose position at one time was analogous to that of her lamented relative, the Princess Charlotte of Wales, has now thrice safely passed the ordeal of being a mother, to the sincere joy of her subjects, an opinion may at present be expressed, that if the Edinburgh professor's doctrine be maintainable, the last-named princess, and many others in various ranks, might have been saved, both from much suffering, and some from the additional penalty of an untimely death. When, on a former occasion, treating of the management of tedious labour, I might have enhanced the importance of my topic by alluding to her case, and to the wide extent of society, in all its grades, which is interested in the subject, I, notwithstanding the temptation, carefully avoided any allusion to that death while recent. Now,

that so many years have elapsed since it took place, it may, without impropriety or indelicacy, be canvassed, as any other historical event.

Dr. Hamilton contrasts his practice with the recorded evidence of the protraction of labour, from non-interference, in London, Paris, and Dublin. To the result of the evidence on record of what occurred in the obstetric practice of these cities, he might have added Vienna, as the experienced Baer, detailing the practice in the great midwifery institute in the Austrian metropolis, says a finger was never employed either to dilate the os uteri or change its position, in whatsoever way it might be placed.\* In more particularly alluding to the practice of Dublin, p. 200, of his "Practical Observations," part the first, he says Dr. Breen (the writer of these remarks) published in the year 1808, in the "Dublin Medical and Physical Essays," Observations on the Management of Tedious Labour, and republished the same in the "Edinburgh Medical and Surgical Journal" for 1819. In that paper he gives the following account of the duration of labour in the great lying-in hospital of Dublin:—

"Of one hundred and ninety-six women in labour of their first child, thirty-four had been between thirty and forty hours in labour; one hundred and two between forty and fifty; eleven between fifty and sixty; eight between sixty and seventy; twenty-four between seventy and eighty; four between eighty and ninety; twelve between ninety and one hundred; and one between one hundred and ten and one hundred and twenty hours. These one hundred and ninety-six women produced one hundred and thirty-five living infants, and fifteen of the women died. It is to be remarked, however, that these one hundred and ninety-six cases occurred in the course of six years, and were selected out of eleven thousand six hundred and ninety-five women delivered during that time."†

This extract from Dr. Hamilton, which he took from my paper before referred to, is here introduced, as I intend chiefly confining myself to the practice I have witnessed, and limiting myself, in a great measure, to my own experience.

The station which Dr. Hamilton filled at Edinburgh, a city distinguished for its intellectual character, the extensive practice he enjoyed there for so many years, and the facility with which any exception to the accuracy of his statement would be detected in such a locality, a locality so unlike the leviathan extent and population of the metropolis of the southern division of Great Britain;—this position gives such a weight to the learned professor's opinions as renders an investigation of their chief consequences of vast moment. The importance of this investigation is much increased if it shall appear that the employment of the perforator, in cases where no deformity of the pelvis exists, will be rendered much less frequent if this mode of conducting a labour be safe and generally practicable. There can be no hesitation in considering the use of such an instrument in a case like that mentioned, where no disproportion of the pelvic cavity exists, uncomplicated with any midwifery casualty, and where no certainty exists of the child's death, as deserving the term of *opprobrium obstetricorum*.‡

Influenced by these views, and bearing in mind a breech case recorded in the sequel, on reading Dr. Hamilton's publication, I determined to give a fair trial to his suggestion, though it was contrary to my previously-recorded opinions, and long-entertained rules of

\* Nec ori uterino quorsumcunque verso ad reducendum aut dilatandum, admotus index est. Baer., p. 437, editio prima. Viennæ, 1812; editio altera, p. 267, Viennæ, 1830.

† Dr. Hamilton only refers, in this extract, to women in labour of their first child, where the duration of that process exceeded thirty hours. In addition, in the entire number delivered in the hospital, there were ninety more who had previously been mothers, that were thirty or more hours ill, and delivered without instruments.

‡ The writer is quite aware that one of these words is not classical. The phrase is, however, appropriate, and sufficient authority will be found in the language of medical writers, in the Latin language, for its use.

practical conduct. At first the attempts were cautious, afterwards, justified by success, they were more freely made. I was not anxious to terminate labour within the specific time of twenty-four hours. But whenever I met a case whose slow progress and concomitant symptoms indicated that it would be very tedious,—in short, a case where, after some hours' duration of severe and uninterrupted labour, the opinion strongly forced itself on my mind, that I could not foresee the termination of the patient's suffering within a reasonable time, or calculate with tolerable certainty on the unassisted powers of nature being adequate for its termination,—the result has been to convince me of its perfect safety and its direct consequences, that, by husbanding the expulsive power of the uterus, often expended in unavailing efforts to obliterate the cervix, it reserves efficient strength in that viscus either to dilate fully the os externum, or almost universally to bring the presenting part within the reach of means compatible with the safety of both mother and child. It is not, however, to be understood that a hasty recurrence either to the lever or forceps is meant to be inculcated. Indeed, I have no doubt that by following Dr. Hamilton's recommendation, the use of obstetric instruments of every kind will be rendered less frequent. In a future paper an opportunity will be afforded of entering more minutely into the circumstances which would seem to warrant their application, and a calculation will be made of the comparative number of times in a given proportion of cases, where their use may be fairly called for.

So satisfied am I of the advantages of Dr. Hamilton's practice, that I would say to the practitioner inexperienced in its results, in the language of the poet,—

*Tu ne cede malis; sed contra audentior, ilito,*

which, by a free translation, may be rendered, "Do not yield to difficulties, but go on boldly." In addition, I can confidently state, as the result of many trials, that no injury will follow the degree of force required, should the attempt be made before inflammatory action commences, which, in a former publication, I have proved not to occur until many hours have elapsed from the real commencement of labour.

Though quite coinciding in the proposition that a meddling midwifery is bad, and thinking the profession indebted to Dr. Blundell, the first introducer of the expression, like every other general rule it has its exceptions. No obstetrician would consider it meddling, or hesitate to alter a presentation of the face to the pubis, as recommended by Dr. John Clarke, could it be easily effected, if the labour were going on slowly. It is generally bad practice hastily to introduce the hand to extract the placenta, but such a measure sometimes must be resorted to. In tedious labour, with strong uterine action and rigidity of the parts concerned, most obstetricians would bleed, and some give tartarised antimony. Few would hesitate to administer ergot, in a case where, after several hours continuance of severe labour, the pains began to diminish in force, and perhaps in frequency, the patient's strength at the same time beginning to fail, and no relief following an opiate. I am firmly convinced that the future experience and judgment of obstetricians will pronounce the timely dilatation of this organ by art a safer plan than resorting to this always uncertain and sometimes unsafe article of the materia medica.

Perhaps it may not be amiss here to notice a very common observation, and one often repeated, that time is not of the importance which I hold it to be, in regulating the management of labour, as one woman may suffer more in twenty-four hours than another in treble that time. As a kind of loose assertion this may pass unquestioned. But even this proposition admits time as an element in the calculation of the consequences of tedious labour, and supports the universal proposition, that length of time must be always kept in view in conducting a tedious obstetric case.

It is generally considered the duty of the practitioner, not to interfere, merely to shorten the sufferings of the patient, while the case promises to terminate favourably by the powers of nature; this rule is closely associated with that of its still more strictly his duty not to be

influenced by any desire of saving trouble to himself, or lessening the time required for his attendance. Yet the question may be asked, why not, if safely practicable, bring the labour within what nature seems to point out as the normal state of human parturition, and remove it from the exception, as the exception, in probably ninety-nine cases out of a hundred, is to be attributed to causes dependant on the state of society, such as the physical education of females, unhealthy occupations, late marriages, and occasionally very early similar engagements. In illustration of the influence of physical education and unhealthy occupations, I may refer to the statement of Dr. Dewees, of Philadelphia, that he never met with a female, born and educated in America, whose pelvis was so deformed as to render parturition physically impracticable without lessening the volume of the foetus. Connected with the subject of habits and education, we find at home two classes, of Eastern descent, whose circumstances illustrate this branch of the subject; these are the Jews and Gypsies; the first-named people, particularly the more wealthy class, adopt the customs of the nation where they are domiciled in all things not contrary to the law of Moses, and I know, practically, sometimes are subject to difficult parturition. The latter, who retain their primitive and eastern habits, I am informed, have universally quick and easy labours.

It may also be demanded, with confidence, from every experienced obstetrician, if he has not occasionally met with instances of tedious labour ultimately requiring the use of instruments, where a segment of the os uteri overlapping the child's head precluded the employment of the forceps or lever. In such cases the duration of the labour renders the development of inflammatory action imminent, and from that cause, even after the trial of venesection, artificial dilatation is rendered unsafe, where, if it had been more early had recourse to, the labour would probably have terminated with safety to both child and parent.

I am not partial to publishing cases in individual practice, of which I can assure my reader I have an abundant supply, as I think that custom has been carried too far; but the following narrative seems so completely to support the practice here advocated that I am tempted to put it on record. Early on a Sunday morning I was sent for to a lady in labour of her first child; in the course of that day the membranes ruptured, and it was ascertained that the breech presented. During the following day and night the pains were severe and frequent, the os uteri dilating very slowly, and the hip near the pubis making little progress. The same conditions will apply to the state of matters on Tuesday. In the course of the evening of that day I had the assistance, in consultation, of the late Mr. John Adrien, sen., of this city. We considered a segment of the inferior part of the uterus, in front of the pelvis, covering the hip of the child, a chief obstacle to the progress of the labour. That gentleman stated to me, that in several cases he had met with, where the presenting part being covered, as it were, with a flap of the os uteri, seemed the chief impediment to the regular progress of parturition, he had sometimes tried to push up this flap, but had never succeeded with the force he deemed safe to apply. My own opinion, formed from the practice of the Dublin Lying-in hospital, fully coincided with his. This labour continued to go on uninterruptedly during Tuesday night, and Wednesday following, until between seven and eight, p.m. The patient had been largely bled on Tuesday, and got a full opiate on the night that day. On Wednesday evening, the os uteri was nearly completely obliterated, the breech was resting on the perineum at the os externum, and a finger could be hooked in the flexure of the thigh. The pains were becoming languid, and the patient much exhausted. From a consideration of all the circumstances Mr. Adrien and I determined to try the blunt hook. By the aid of this instrument a female child was extracted, but not without difficulty, and a considerable time elapsed before respiration was established.\* This young lady is living at the

\* It may not be irrelevant, or uninteresting to the junior practitioner, to state that in the course of a long practice I have met with but three similar cases where

time I write. Her mother, in the succeeding years, had several children, and rather easy labours with all.

To the practitioner who has carefully studied the mechanism of parturition, this case, though not a cranial presentation, will as strongly bear on tedious natural labour as if the head had presented. How much the importance of this mechanism was overlooked at no very distant period, the following quotation from Dr. Denman's *Midwifery*, vol. ii, page 54, will prove:—"When the face of the child is inclined towards the pubes, the peculiarity of the position is not usually discovered in the early part of labour, or even when the first stage is completed, the practitioner being generally satisfied with knowing that it is a presentation of the head."

At the present day every well instructed obstetrician, when he finds the head presenting, endeavours, as early as practicable, to detect the fontanelles, and thus enable himself to judge of the position in which the cranium presents. In the investigation the posterior is that most frequently the easier to be found. Should the anterior be the one alone accessible to the touch, he carefully weighs and investigates the characteristic marks which distinguish this from the posterior, and thus enables himself to judge whether the presentation be favourable.

In further illustration of this subject, I will extract from a paper of Dr. Dwyer's, of this city, one of the vice-presidents of the Dublin Obstetrical Society, read before that body, on the 11th of December, 1838, and published in the "*Dublin Journal of Medical Science*," vol. xv, page 308, entitled, "On Labour rendered tedious or difficult by certain states of the Os Uteri;" he thus writes:—"A difficulty and protraction of labour is sometimes met with, arising from what may be considered a partial degree of rigidity, or unwillingness to yield on the part of a portion of the os uteri. When this is observed to occur it is generally found to be the anterior lip that is engaged, and appears to me to admit of the following explanation: The pelvis is not, in this case, very roomy; the dilatation has not been completed before the head becomes engaged in its brim. The anterior portion of the os uteri is forced down, unrelaxed, between the head of the fetus and the os pubis, where the head at first generally rests, and though the natural effect of each successive pain would be to complete the dilatation of the os uteri, and so enable the head to escape from its grasp, this is not allowed to take place, the lip of the os being held almost, as it were, in a vice, the consequence of which not unfrequently is a state of cedema of this part, and if the difficulty, or cause of arrest, evade the discernment of the attendant, a protraction of the labour, and a series of fruitless efforts at expulsion, may end in exhaustion, or delivery by the perforator. In cases of this kind, that is, when a portion of the os uteri having descended before the head, is detained in this situation by being pressed between the head and bony pelvis, the sufferings of the patient are severe. The pains will occur with regularity, but there is something in their character that will demonstrate their ineffectiveness, that will, as it were, declare their inability of themselves to overcome the difficulty."

"When a portion of the os and cervix uteri is thus forcibly detained, much relief can be afforded by keeping a couple of fingers pretty firmly fixed against it during the pain, so as to prevent its being pushed further down. This manœuvre should be practised during each successive pain, and it will be found that if judiciously carried into effect the imprisoned portion will, after two or three pains, escape, and the head descend below it."

It is now my firm conviction that had I been aware of the safety of Dr. Hamilton's suggestion, and followed his practice in the management of the breech case just sketched, I should have saved the patient from very protracted suffering, and the child from most imminent danger of death.

the blunt hook was used in a breech case. The first in the Dublin Lying-in Hospital, while I was assistant to that institution; that above detailed; and the third in November, 1837, in which I was assisted by Dr. Lebutt, of this city. Two out of the three children did not survive.

Some facts which have recently been brought forward with regard to the state of the cervix uteri, occasionally, during the progress of parturition, and which put beyond doubt the reports of former observers, prove that this portion of that viscus is capable of sustaining much force without danger to the life of the mother.

The circumstance to which I wish to direct the attention of the reader is that the cervix uteri may be entirely separated, or nearly so, from the remainder of that organ, in the progress of a severe labour. The first case of this nature with which the British obstetrician was made familiar was communicated by Dr. Merriman to the Medico-Chirurgical Society of London, in March, 1821; on that occasion he read a paper of Mr. Scott, of Norwich, giving an account of the complete separation of the cervix uteri in consequence of severe labour, and in which the woman recovered. This paper will be found in the 11th volume of the *Transactions* of that society. The "*London Medical Repository*" of Jan. 1822, in noticing Mr. Scott's report, refers to a case recorded by Steidale, a German. Steidale, in the year 1771, published at Vienna, in the German language, a collection of remarkable observations on lesions of the uterus during parturition, containing three cases of rupture of that organ. In the following year he published a supplement containing two additional cases. These publications are catalogued in *Pluquet's Repertorium* under the head "Uterus," vide "*Pluquet's Repertorium Tubingæ*," anno 1809. An analysis of Steidale's five cases are given in the "*Commentarii de rebus in Scientia Naturali et Medicina gestis*," Lipsiæ, 1776, vol. 21, p. 510. The reviewer, in the analysis of the fifth case, thus describes it:—"In quinta ruptura reperiebatur antrosum versus vesicam urinariam, super orificium, quod tamen erat illæsum." These facts, as far as I am aware of, seemed to have attracted little attention, and appeared to have been considered quite anomalous by succeeding writers, and as not leading to any useful practical result, when, in March 1839, Dr. Evory Kennedy, of Dublin, communicated a similar occurrence to the Pathological Society of that city, and at the next meeting of that society, on the 6th of April following, a second case of the same nature was related by him. The fullest account of these facts yet published will be found in the 16th volume of the "*Dublin Journal of Medical Science*," p. 154. In the same volume, p. 55, is a drawing of a portion of the cervix uteri, which measured, when first separated, about three inches and a quarter in diameter, and came away in a case of tedious labour, under the care of Mr. Hugh Carmichael, of this city. This occurrence was anterior in point of time to Dr. Kennedy's, but was not communicated to the profession until after the latter had given a detail of his two cases, as before stated. Dr. Churchill, in his book on the "*Theory and Practice of Midwifery*," mentions a somewhat similar case as occurring to him. In addition, Dr. Dwyer, at a meeting of the Dublin Obstetrical Society, mentioned his having met with a case where a portion of the cervix, obstructed between the pubis and child's head, separated during the labour. In all but the German case, where the analyser does not mention the result, the mothers recovered. The chronology of these events is, I think, not a little curious, from 1775 to 1821, nothing similar is reported, nor from that to 1839, including which year five are put on record, all occurring in Dublin.

The joint view of the breech case I have narrated, of the occasional separation of part of the cervix uteri without the loss of life to the mother, prove that this part is capable of sustaining much force, which is often not directed to the favourable termination of the process of parturition. These facts would seem demonstrably to prove the judiciousness of interference by art, either where the action of the propelling power is misdirected or the part to be dilated unusually rigid. I request my reader to consider the anatomical structure of the cervix uteri, covered by the mucous membrane of the vagina, not receiving in its investment an envelope from the peritoneum, its conformation nearly of the same structure as the vagina, muscular, with a covering of mucous membrane. I need not place before the obstetrician with what safety this latter part bears the distention, and even

obliteration, of its ordinary form, although it receives a partial covering from the peritoneum at its posterior part, by the passage of the child's head in the most natural labour. I can scarcely think, considering the arguments and statements I have brought forward, in conjunction with the experience of Professor Hamilton and Mr. Burns, and my trials of this practice, the safety of artificially dilating the os uteri in certain cases can be called in question. The dictum of Bær, before quoted, which I may say completely conveys the rule which guided our practical conduct in the Dublin Lying-in-hospital, in the treatment of the 11,695th case, the result of which I have published in the "Edinburgh Medical and Surgical Journal," for April 1819, will no longer be considered a judicious rule of practice.

The reader will find a paper by Dr. Ashwell, in the "Guy's Hospital Reports" for April 18 9, on incision in case of occlusion and rigidity of the uterus. In this paper are detailed several cases, occurring at different times and in different countries, which support the propriety of artificial interference in certain states of the os and cervix uteri in labour.

It would too much extend this essay to analyse Dr. Ashwell's publication, and be contrary to my expressed intention of chiefly confining myself to my own experience.

Smellie occasionally tried the plan of artificial dilatation. However, from the unsystematic and injudicious mode of his proceeding, although it appears he sometimes succeeded, he must more frequently have done injury than service. In his third volume, p. 309, London, 1764, he says, "I had even known the os uteri tear and the patient recover." In a few pages after he says this occurred even without any unfavourable symptom following. What I chiefly think objectionable in his mode was his delaying too long to try this plan. As he states, page 310 of the same volume, "This expedient, however (that of dilating the os internum), I think should never be attempted but in the last extremity."

Between the times of Smellie and Denman the only authority I find bearing on the subject is that of Dr. Wallace Johnson, whose "System of Midwifery," pages 260 and 263, may be consulted.

Denman's authority in inculcating the Hunterian mode of non-interference and implicit reliance on the powers of nature, joined with Smellie's inappropriate application of a judicious practice, when had recourse to at the proper time, completely influenced the conduct of their successors. The first named of these teachers thus writes, when speaking of the mechanism of parturition in that stage of labour where I hold artificial dilatation to afford the utmost advantage, "With all these changes, whether produced easily or tediously, in one or in many hours, the practitioner should on no account interfere, provided the labour be natural." To these reasons may be added the wishes of the heads of lying-in hospitals in different parts of Europe to give the fullest extent to the experiment of trying, as in another essay I have expressed it, "*Quid ferat aut faciat natura*."\* In such a state of opinions no writer, as far I know, between Denman and Burns, advocated the practice of artificial dilatation in the manner proposed by the latter. Professor Hamilton appears the next supporter of this practice. It is not to be overlooked that this writer fell into the logical sophism of the *transitus a dicto secundum quid ad dictum simpliciter*, by stating what only occasionally takes place in protracted parturition as universally occurring. In consequence, experienced and intelligent obstetricians, whose practical knowledge led them at once to believe the fallacy of his arguments, overlooked the weight of his leading fact, and did not adopt his recommendation. Thus his

practice has not hitherto met with the attention which I consider it justly deserves.

One great object of my writing being to endeavour to convince the experienced, who, I take for granted, are already aware of Mr. Burns's and Dr. Hamilton's modes of proceeding in the cases under discussion, I shall very briefly state the mode adopted by myself. I think artificial dilatation should not be attempted for at least ten hours after the real commencement of labour, no matter what the duration of spurious labour may have previously been. When this measure is called for the membranes will be usually found ruptured, but not universally so. Two fingers are to be introduced, either between the os uteri and unruptured membranes, or, if ruptured, between the os and presenting part of the child. The fingers are to be used either for the purpose of dilatation or as a wedge, to resist the coming down of a flap of the cervix of that viscus. Above all things it is to be particularly kept in mind that the fingers are to be quiescent except during a pain, and to be used only during the most severe portion of this action. By thus proceeding no additional suffering will be caused to the patient. About two hours will usually be found sufficient to obliterate the undilated cervix, but the attendant need not be anxious to complete this measure within so short a time. He may occasionally cease from his trials and watch what nature may be capable of effecting. By following these rules we avoid the risk of encountering the tendency to inflammatory action, which is always to be dreaded when severe labour is complicated with a long duration of that process. When first I read Mr. Burns's opinions on this subject, now many years back, I was surprised that he did not recommend artificial dilatation to be preceded by blood-letting. This measure, though not contraindicated, will generally be found unnecessary. In thus bringing the presentation to act on the perineum within the first twenty hours of labour, or generally a shorter period, we secure such a portion of uterine action to be directed to the dilation of this part, as if it does not absolutely terminate the expulsion of the child before danger impends, from the protraction of parturition, will render instruments compatible with the mother's and child's safety applicable. Sufficient materials exist to prove that the following of the practice advocated by Professor Hamilton, and supported in this essay, will not render obstetric practice either too artificial or meddlesome. For though nature has carefully provided a set of organs for the continuance of the human species, and for the safety of this process, yet, in a certain number of cases, all agree that artificial interference of some kind becomes absolutely necessary. Though it be true that the decree has gone forth that the woman in sorrow shall bring forth children, this is no reason why the obstetrician should not resort to the aid of art, guided by science and experience, to alleviate the suffering of his patient.

I acknowledge I am sanguine enough to expect that the practice of midwifery is capable of being so far improved that the perforator will not be used in cases uncomplicated with obstetric casualties, such as deficiency of space in the pelvis, convulsions, &c., or in cases where the prolapsus of the umbilical cord, joined with a cessation of its pulsation and other certain indications of the child's death, remove all moral objections to this always uncomfortable measure to the conscientious practitioner. In fine, I would appeal to the best-informed obstetrician if ever, in the most remote vista of future improvement, he perceives any probability of banishing from practice what in a former part of this paper I have called the *opprobrium obstetricerum*, except through the adoption of Mr. Burns's and Professor Hamilton's mode of acting in labour likely to be tedious. No person can doubt that I have added to the Edinburgh professor's authority additional facts bearing on the subject, and supporting the safety of the practice. Let no practitioner, on merely speculative grounds, reject a mode of conducting a labour which mitigates the sufferings of his patient, and much lessens the danger of inflammatory action or debility succeeding parturition,—the first rendering the use of every instrumental aid dangerous, and the second very generally proving fatal.

\* In recording the result of this trial I am entitled to claim priority, as my paper on tedious labour, published in the "Edinburgh Medical Journal" for April 1819, contained the first detailed account of the duration of labour in 11,695 cases, and the general result of occurrences in the entire number. See also "Dublin Medical and Physical Essays," No. 5, 1808.