They may arise from any irritation conveyed to the nervous centres; and so we have the convulsions of infants, from crude food, &c., of parturient women, from the presence of the child, or placenta, or lochia, and of ordinary persons from other similar causes. They may likewise proceed from idiopathic affections of the brain or chord, and the treatment will vary according to all these causes. The convulsions of infants, which are perhaps the most common, are generally to be subdued by calomel and the warm bath, better than by anything else; but should they depend on the pressure of a tooth on the gum, or the presence of a thorn, or such other cause, of course the treatment must be directed to the affected quarter. For the management of puerperal convulsions, I must refer you to the professor of midwifery; and as to those that affect the ordinary class of patients, under such innumerable forms of irritation as general practice will present, I must simply content myself by remarking that you must endeavour to discover the exciting cause, abate or remove it, and administer antispasmodics, stimulants, tonics, or sedatives, according to the general condition of the system. Thus in purely nervous convulsions, without any apparent physical cause, you may have recourse to such a sedative as opium, or to such antispasmodics as valerian or musk, or to the more potent tonics—zinc, arsenic, and quinine; or when they arise from congestion and languid circulation, you will employ such diffusible stimulants as brandy and ammonia. The presence of irritants will, of course, require a different mode of procedure in the first instance, such as the employment of emetics, purgatives, and vermifuges, or emmenagogues, or other agents, according to their nature, followed up by the stimulants, antispasmodics, or tonics, as they may be required.

February 25, 1851.

REMARKS

ON THE

CÆSAREAN SECTION, CRANIOTOMY, AND ON THE INDUCTION OF PREMATURE LABOUR.

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ETC., ETC., ETC.,

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MOST of our ablest obstetric writers recognize the Cæsaean section. Smellie, Leake, Aitken, Forster, Denman, Sims, Alex. Hamilton, Clark, Burns, Hull, Gooch, James Hamilton, Blundell, Barlow, Hopkins, Montgomery, Churchill, Shackleton, Conquest, &c., have treated upon it in their writings, and justly consider it the appropriate operation to meet and overcome the difficulties of those cases of protracted labour, for the management of which no other plan is available, or has yet been devised. It ought not to be considered by the profession as a resource solely to save the infant, as some of the observations of its recent advocates imply:

but it ought most assuredly to be also valued as, and undertaken for, the purpose of likewise saving the life of the mother. This is a noble object to aim to attain; and if it is duly estimated and tried for, it will most assuredly be accomplished. Its numerous advocates have the highest obstetric reputations, and their opinions will be revered, when the dogmas of its adversaries are buried in oblivion. There is, then, sufficient reason for the existing members of the profession to coolly and deliberately "weigh it in the balance," and if found (not by prejudice) wanting, then they are warranted to expunge it from the obstetric code. To listen to and be guided by dogmatic assertions, is not the legitimate and scientific method to settle questions of life or death. It is a controversial subject, and will remain so, until the evidence *pro* and *contra*, is fairly examined. Most unwarrantable epithets have been used as characteristic of its termination. Dr. Osborn admonishes us as to "the propriety of never exposing the very valuable life of a mother to absolute destruction by the Cæsaean operation." The erroneous doctrines inculcated by this writer, have been ably and satisfactorily controverted by Dr. Alexander Hamilton, (Letters, &c.,) and Dr. Hull. Mr. Simmons justifies the term "inevitable destruction," used previously by Osborn; and further, brands the operation as *murder*. The fallacy of his malignant remarks are ably proved by Dr. Hull. The memorable case of Elizabeth Thompson, upon whom my valued relative Mr. W. Wood performed the Cæsaean section, affords ample proof of his unprincipled objections against this operation, and also his unwarrantable confidence in the *crotchet*, and his *proposed compound operation*.

This poor woman resided at Hazelhurst, about eight or nine miles from Manchester. When in labour, she was visited by Mr. Ogden, who was also a strong anti-Cæsaeanist. After having examined the state of the pelvis, he sent for Mr. Simmons. When he (Mr. S.) visited the patient, he found to his great mortification, that neither the *crotchet* nor his compound operation were adequate to the delivery of this poor creature. He left the woman without affording her any assistance, and she was afterwards brought over in a cart to the Manchester Lying-in Hospital. The pelvis is in my possession, and a cast of it was presented by me to the Royal College of Surgeons of England. (*Vide* Case, "Medical Memoirs," by Mr. Wood.)

It has been called a "terrible," "inhuman," "cruel," "barbarous," "bloody," "horrible," "murderous," "undesirable," "dreadful," an "unnecessary," and an "unjustifiable operation," it is said to be a "melancholy catastrophe," and "that the operations, as performed, were abominations."

Many cases of protracted labours from distortion of the pelvis, have frequently occurred in my practice, some of which have been terminated by the natural efforts; some by the forceps, and others required craniotomy. Five of these cases required the Cæsaean section, which are quite sufficient to enable me to judge of the contingent circumstances which happened during and after the operation, and authorize me to

state whether the beforementioned terms are warrantable. It is not inevitably destructive, as in two out of the five cases the lives of both mother and infant were saved; it is not a cruel or inhuman operation, because it has been in every case undertaken with the most humane and sympathizing feelings, and with the hopes of rescuing the unfortunate creature from long suffering and impending destruction; it is not a barbarous procedure, being recognized by the best obstetric writers in all civilized countries, as the only available resource to meet the extreme difficulty of such cases; it is not a bloody operation, for in none of these cases was there much blood lost; it is more terrible, horrible, and dreadful to the witnesses of the operation, than to the poor suffering woman herself; she hails with joy any plan which promises to terminate the anguish she has so long endured. Dr. Sims says:—"Human imagination can hardly conceive anything more dreadful than the distressing anxiety of a woman in the pangs of labour, without hope of delivery." It cannot be murderous: to be so, it requires *malice prepense* on the part of the operator; on the contrary, it is done to save two lives. Such an epithet is more appropriate for the crotchet operation. We agree to say it is an undesirable operation, and we hope no man is so wanting in moral principle as to desire such a case to happen in order to gratify his "rage for cruel and bloody operations." The justice and necessity of this operation will be proved in the course of this paper.

A very eminent obstetric practitioner has lately remarked, that "he is fully satisfied that if, in great distortion of the pelvis, abortion, or the induction of premature labour were had recourse to at the proper season, no case could occur in which the Cæsarean operation could be required." Craniotomy or embryulcia are said to be equal to the delivery of some, if not all, the cases of distortions of the pelvis in which the Cæsarean section has been performed.

These several methods, which are recommended to supersede this procedure, do not all stand on the same moral and professional grounds. The induction of abortion, and the induction of premature labour, are considered equal to prevent the Cæsarean operation ever being required, even in the most distorted pelvis. Under such circumstances we are recommended to adopt this practice; nay, I should think, from the tone of the author, either the one or the other procedure must be had recourse to, if the practitioner desires to discharge his duty to his patient. This injunction is not alone confined to those cases with which the practitioner must of necessity be acquainted; at least, that there positively exists a considerable diminution in the pelvic diameters from his experience in former labours; but it is considered that this practice is applicable and ought to be adopted under such circumstances in first labours.

These statements naturally suggest to the mind an important question,—Whether there are any certain indications of the existence of extreme pelvic deformity during the early period of a first pregnancy, which demand manual examination? The pelvis may be extremely deformed in early life by rickets, and although

the disease has been arrested, yet the mischief inflicted on its bones continues, and its diminished diameters bear the same relative proportion to its present degree of development which they did to that at an earlier period. In such a case, extreme distortion of the pelvis may exist through the whole period of life, without the slightest external evidence, either in its bones or other portions of the osseous system; and therefore this state can only be ascertained when labour has commenced.

Internal exostosis may grow from any of the bones of the pelvis, without a suspicion that such a disease exists. These tumours acquire different sizes; sometimes they become so large, and diminish the pelvic diameters so much, as to render the Cæsarean section necessary; and yet, until labour has happened, there were no external marks which shewed that so serious an internal impediment to the progress of the child had previously existed. (*Vide Case of Cæsarean Operation by Dr. Mc Kibbin, Edinburgh Medical and Surgical Journal, Vol. 35.*)

Fracture of any of the bones of the pelvis may occur at any period of life; and when they are united, either its inlet, outlet, or cavity, may be very considerably diminished in their measurement. If pregnancy takes place after such an accident, the Cæsarean section may be the only means by which delivery can be effected. This happened in Mr. Barlow's case, and although there was here external evidence that great mischief had been done to the pelvis, yet there was no alternative for this operation; for neither of the obstetricians was acquainted with the pregnancy until called in after the labour had lasted for a considerable length of time. A midwife had been employed in the first instance. But in other cases of this kind of accident which may take place in early life, no external traces of the injury may exist, and the occurrence may not be communicated to the attendant, either from the patient having forgotten it, or not considering it of any importance to make it known to him.

Mollities ossium, as its name implies, is a softening of the bones; and may attack any portion of the osseous system, but the pelvis most generally suffers from its ravages, which produce every degree of distortion in it. This disease is usually slowly progressive, and sometimes remains stationary, except during pregnancy, when it rapidly increases. It very seldom (yet it sometimes) happens that the distortion of the pelvis is so great, in a first labour, as to require either craniotomy or the Cæsarean section for delivery. The usual course of this malady is to produce an additional degree of mischief during each succeeding pregnancy, and thereby rendering necessary a different plan of delivery in each succeeding labour. The obstetrician may and ought to avail himself of the knowledge he has had the opportunity of practically acquiring of the degree of distortion at any previous labour, and bring it to bear on and to guide his judgment as to what method should be pursued during the succeeding pregnancy or labour. An accurate inquiry during one labour, with a careful examination of the pelvis in the early months of the next pregnancy, will be all sufficient to direct him in his

treatment of the case. In a first pregnancy he has not this information, and therefore he stands in a very different position in regard to his professional responsibility. Extreme distortion of the pelvis from mollities ossium may exist, and yet every other bone may be free from disease. The pelvis in Sir C. Bell's case was extremely distorted, but the skeleton was of average height; and the bones, especially the thigh bones, were firm and of full size.

It is true the general health suffers in a greater or less degree during the progress of this disease; and pains, like those of rheumatism, are felt about the hips and lower part of the back, and the patient's gait becomes different, and her stature becomes less.

If a woman, for the first time pregnant, applies for professional attendance in her approaching labour, at the fifth, sixth, or seventh month, and on inquiry she complains of the pains above-mentioned, and the other effects of the disease are to be observed, then there can be no doubt as to the wisdom of making an internal manual examination of the pelvis. But in many cases such an application is not made until a later period of pregnancy; and frequently even then no statement of local pains is made to the practitioner. He may be a stranger to her, and unacquainted with her former gait or stature; and he must, therefore, be unable to make a comparison of her present with her previous state. Women in the lower ranks of life usually employ midwives; and, therefore, medical gentlemen are seldom or ever consulted until the labour has continued for some time, when some serious impediment to its advance is found to exist.

From the previous remarks it is quite obvious that no knowledge of the existence of extreme distortion can be acquired in many of such cases until after the commencement of labour, when suitable measures for delivery can only then be determined on. But even in cases in which this knowledge may be or has been obtained, there is no alternative for the Cæsaean section.

A question will no doubt arise in the minds of those who have not had to manage labours obstructed by distortion of the pelvis,—Cannot a manual examination of the pelvic diameters be made with such mathematical accuracy, and a decided opinion formed, whether the child's head will pass through it?

An accurate exploration of the pelvis is at all times of the greatest practical importance; but notwithstanding the best endeavours are used precisely to ascertain its capacity, there is great danger of an erroneous computation, especially when it is distorted. The manual difficulties are great under all those circumstances, but are more so when the brim has assumed the triangular shape. The examination should not be confined to the brim, cavity, or outlet; but the measurement of every division of it must, as far as possible, be accurately obtained.

When it is intended to induce premature labour we should compute the pelvic space in relation to the size of the foetal head at the period of pregnancy at which the operation is to be done. So, when craniotomy is

decided on (as a rule of British practice) the space must be relatively considered; and at the same time it must be remembered that the reduction of the foetal head cannot be effected beyond certain limits.

Abortion.—The induction of abortion is one of the operations proposed to prevent the necessity of the Cæsaean section; but in the opinion of the writer it can only be justifiable to have recourse to it in a first pregnancy. (*Vide* "Remarks on the Value of Embryonic and Foetal Life," *Obstetric Record*.)

But it is not alone on moral grounds that this procedure is considered inadequate to meet such a proposition. It is physically impossible safely to perform this operation in most of the cases of extreme distortion of the pelvis, especially in those which have a triangular-shaped brim.

An experienced practitioner unsuccessfully attempted to destroy the ovum. The woman afterwards died. The pelvis is in my possession, and is an example of the highest degree of distortion from mollities ossium which was ever presented to my notice. Other cases of a similar description are on record, in which the same results happened.

Medicines have been administered to produce abortion in these cases; but the practice is unwarrantable and dangerous. One woman died after taking *secale cornutum*; but in her case an instrument had been first used. Mrs. Sankey, one of the women (already mentioned) who recovered after the Cæsaean operation, became again pregnant. She took, by the direction of her medical attendant, the *secale cornutum* and infusion of *savine*, for the purpose of inducing abortion, but it is said they failed to produce it. In more than a month after its discontinuance she aborted a two months' foetus; the placenta was detained, *secale cornutum* was given, on the third day it was reached by the finger and extracted. She died in about five days after the expulsion of the foetus.

Premature Labour.—Premature labour is to be induced, not so much for the purpose of superseding the necessity of the Cæsaean operation as it is to prevent the use of the murderous instruments—the perforator and crotchet. Whenever the pelvis is so much distorted as to prevent the passage of a full-grown infant without the aid of craniotomy, but will permit one that is premature and viable, this operation must be performed before the end of pregnancy. The longer gestation is allowed to proceed without interruption, the greater chance is afforded to the child to live, but the period at which labour ought to be induced, must depend on the degree of distortion of the pelvis. The great consideration here is, the probability of the birth of a viable infant. Most writers assert that it has not the power of maintaining an independent *post-partum* existence until the seventh month of pregnancy. I venture to differ from this opinion, and do not unconditionally accept this limitation, but I think that a shorter period of intra-uterine life would, in many, if not in all cases, enable the infant afterwards to exist.

I have known one, not larger than at six months, survive, and another, not more than six months and a half when born, lived to be ten years of age. Cases are recorded of viable infants born at the above-mentioned periods.

The performance of this operation is justifiable on moral grounds, and it is sanctioned by every professional and social principle. Its object is noble, it saves a life which must otherwise be destroyed, and at the same time the woman incurs not much, (from my own experience I can say no,) more risks than those which are contingent on ordinary parturition. But notwithstanding the high value of this operation, it is not warrantable unnecessarily to have recourse to it. Errors (as already stated) in computing the pelvic space may be made. This opinion is corroborated by a case which occurred in the practice of the late Dr. James Hamilton, briefly related by me in the *Provincial Medical and Surgical Journal*, Vol. 2, 1847, p. 404.

The reader is referred for further information on this important subject to Dr. Merriman's *Observations, Med. Chir. Trans.*, vol. 3, p. 123; Dr. Hull's *Letters, &c.*; Barlow; Dr. R. Lee's "Clinical Midwifery."

Craniotomy.—It has been asserted that delivery can be accomplished by the use of the perforator and crotchet, in all cases of extreme distortion of the pelvis. The following remarks will prove that this statement is not borne out by facts. In some cases of this kind the head could only just be reached, and with great difficulty (to say nothing of the danger) perforated. But this done, the power of the operators ended, all further efforts made to reduce and extract it completely failed. "Awful catastrophe!"

A consultation was held on the case of a poor woman in labour; most of those present were anti-Cæsareanists, and therefore they decided on craniotomy. The head was, with great risk, just opened with the perforator, but every other effort made to deliver this poor suffering creature was unavailing. She was allowed to endure the anguish of parturient pains until the uterus ruptured, and death terminated her agony. The pelvis was greatly distorted by mollities ossium, especially the outlet, and there is no doubt, in my mind, an erroneous and partial measurement had been made; most likely the brim had been only attentively examined. A cast of the pelvis is in my possession.

In one case, after the head of the infant had been perforated, the Cæsarean section was performed, and it was extracted half murdered. "Awful catastrophe!"

In another case, after mutilation by embryotomy, the infant was extracted by the Cæsarean section. "Awful catastrophe!"

Others of a like nature are to be found on record. In many of the women who have undergone the Cæsarean section, neither the os uteri or the presentation of the infant could be felt. Under such circumstances how could craniotomy be done? This is the only operation, recognized and justified by the British profession, which is undertaken with the intention of

destroying life. It is only between the value of craniotomy and the Cæsarean section that a comparison need be made. I have been anxious to undertake this important inquiry, and, as statistic deductions are so much in vogue at the present day, I put out a letter in the *Provincial Medical and Surgical Journal*, October 17th, 1849, requesting the members of the Association to kindly send me a statement of all the cases of craniotomy which had happened in each of their practices; but, sorry I am to say, only three or four gentlemen have had the candour to communicate information on this subject. It has been said that the statistics of the Cæsarean section are worthless, but how, I cannot understand. Those of craniotomy are completely valueless; hundreds of such cases have been silently consigned to the grave. Instead of trying to explode the Cæsarean section, (as now practised in Great Britain, which the foregoing observations prove cannot be done,) we ought rather to endeavour to extend its adoption. I stand fearlessly forward as an advocate for its performance, not only when the woman cannot be delivered by craniotomy, but also in other cases. I consider that the Cæsarean section should be approved as an operation of election, and not, as it now is, one of necessity; and that craniotomy ought to be received in the reverse order.

For a further exposition on these subjects I beg to refer the reader to "Remarks on the value of Embryonic and Foetal Life," *Obstetric Record*; *Letters, Provincial Medical and Surgical Journal*, Oct. 3, 1849, Oct. 17, 1849; "Successful Case of Cæsarean Section," *Ibid.*, August, 1849; "Cases of Cæsarean Section," *Edinburgh Med. and Surg. Journal*, Vol. 55, page 67.

To have entered more fully on these subjects would have extended the paper beyond the space which is allowed in a periodical publication upon whose pages there is such a great demand.

ABUSE OF THE MICROSCOPE,

AND ON THE

TENDENCY OF THE DIFFERENT BRANCHES OF SPECIAL SURGERY TO DEGENERATE INTO QUACKERY.

By J. INGHAM IKIN, Esq., F.R.C.S., LEEDS.

To the Editor of the *Provincial Medical and Surgical Journal*.

SIR,—The use of the microscope is so general, and the benefits it has conferred upon medical science are so universally acknowledged, more especially in relation to the study and advancement of that important and interesting branch of anatomy, termed general anatomy, that it may seem somewhat inconsistent in one who happens to be a teacher of that science, and who has been in the habit of using the instrument and pointing out its discoveries for several years, to speak of its excessive use, or rather abuse. But, may we not say, fashion makes fools in too many instances, besides those wherein the manners and tastes of the public are concerned. Favourite hobbies may be ridden too hard,