On the nature, mechanism, and treatment of face presentations / by James Marr.

To Dr Bennet
with the Author's
kind regards

(13)

ON THE

NATURE, MECHANISM, AND TREATMENT

OF

FACE PRESENTATIONS.

BY

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ON THE NATURE, MECHANISM, AND TREATMENT OF FACE PRESENTATIONS.

Perhaps there is no point connected with practical midwifery where so much discrepancy of opinion exists as regarding face presentations. This is the more wonderful, seeing that from their frequency they form a large proportion of the deviations from the natural position, which every obstetric physician must meet with in practice.

The proportionate frequency is seen from the following table:

	Number of Deliveries.	Number of Face Presentations.
Boivin	20,517	74
Lachapelle	22,243	103
Kilian	17,000	122
Boer	6,555	58
Dubois	10,742	30
Clarke	10,317	44
Collins	16,654	33
Guy's Hospital . . .	4,666	24
Total, . . .	108,694	488

This is about 1 in every 222 cases.

In former days face cases were considered preternatural, and so difficult as generally to require the operation of turning, the same as transverse presentations, before delivery could be accomplished. This was the opinion and practice of the accoucheurs of the last and preceding half of the seventeenth century. Smellie says, " when the face presents, resting on the upper part of the pelvis, the head ought to be pushed up to the fundus uteri, the child turned and brought by the feet, according to the directions that will be given when we come to treat of preternatural deliveries." (*Treatise*, vol. i. p. 238.)

Burton states, " The head may come with the face or chin towards the os uteri, having the back of the head lying backwarks. * * * Therefore when the head presents in any of the above directions, and that the *os uteri* is sufficiently dilated, he must introduce his hand into the womb along the child's breast, to bring it forth by the feet." (*New System of Midwifery*, p. 200.)

The same opinion was held by La Motte, Cooper, Giffard, Fischet de Flechy, &c.

Other authors, averse to so formidable an operation as turning, proposed to alter the position by pushing up the face and bringing down the vertex. This was the plan recommended by Stein and Baudelocque, both of whom declare that the spontaneous termination of face presentations is only possible, when the fœtus is very small or the pelvis very large.

Most of the authors whom we have just quoted, if they failed in the operation of turning or rectifying the position, terminated the labour by the forceps or crotchet.

In opposition to these doctrines, we find, even as far back as 1685, Portal stating that face presentations may with safety be left to nature. His words are: "I have delivered several women whose children came with the face foremost, and always without any difficulty; it being only observed, that in such cases no violence must be used, but nature left to its own course, which done, there is no danger either of mother or child." But, unfortunately, in the preceding page, having stated that these cases are "plus contre nature," his observations regarding the natural termination did not meet with the attention it otherwise would have obtained. In 1769, W. Johnston in this country, in 1770, Deleuyre in France, and in 1789, Zeller in Germany, all declared that face presentations, though more tedious than when the head presents, may successfully be left to the unaided efforts of nature. Zeller cited 43 cases out of 3155 deliveries which terminated thus. He was followed by Boer, who carefully observed 80 face cases, of which none of the mothers suffered more than in ordinary labour, and only four children were still-born; of these only one required artificial assistance, the forceps being the mode of delivery adopted. Denman, I ought to mention, coincided with these authors. Strange to say, the same discrepancy of opinion still seems to pervade the profession in the present day. Thus Burns says, "in face presentations, some have advised that the child should be turned, and this is proper, if the membranes being still entire, any circumstances on the part of the mother render it desirable that the labour should be soon completed, at the same time that the pelvis is ample, and we expect an easy delivery of the head to follow that of the body. But if there be no urgency, from weakness, or any other state of the mother, or of the pains, it will be better merely to rectify the position of the head itself, by raising the forehead, turning the vertex obliquely down, and directing it to the left acetabulum." (*Midwifery*, p. 431.)

Davis is even stronger on the propriety of interfering in these cases. His words are, "when the face is discovered to present at the brim of the pelvis, at an early period of a labour, whether before or very soon after the escape of the liquor amnii, there can, in the author's opinion, be no doubt as to the preferableness

of turning to all other modes of treatment. That operation dexterously performed, would, at all events, give the child a good chance of preservation of its life; whilst it would also be the means of rescuing the mother on the very brink of impending danger." (*Obstetric Medicine*, p. 990.)

On the continent, the same view is espoused by Capuron, one of the most distinguished accoucheurs of the present day. He, like Mesnard, endeavoured to demonstrate by geometrical measurements of the pelvis, in reference to the child, that in face cases, delivery is impossible, without the assistance of art. (*Bibliothéque Méd. Analys. de Mme. Lachapelle, &c*) Flamant joins in the same view. (*Stolze Thèse*, p. 37.)

On the other hand, we have many authors of the greatest talent and experience, both on the continent and in this country, following Portal, Deleuyre, &c., and advocating the sufficiency and success of the unaided efforts of nature in these cases. Among these we may enumerate Mme Lachapelle, Chevreuil, Desormeaux, Velpeau, Bang, Pacoud, Kilian, Stolze, Blundell, Merriman, Ramsbotham, and Rigby.

Seeing, then, such very conflicting opinions on a matter of so much practical importance, I propose, in the first place, to glance shortly at the causes and mechanism of face presentations, and then to examine separately the different modes of treatment proposed, with the view of determining that which is the most successful, and which, therefore, ought to be pursued in these cases.

Causes. These are still obscure. Burns says, " generally no evident cause can be assigned." Deventer ascribes them to obliquity of the uterus, whereby the occiput, being brought in contact with the brim of the pelvis, is caught there, while the pains continuing, the occiput being fixed, first the forehead and then the face is forced down. In favour of this view, is the fact of the frequent occurrence of face presentations, when deformity of the brim of the pelvis exists. Gardieu considers the obliquity to be rather in the fœtus itself. Sometimes they exist as original presentations, as in two cases recorded by Mme. Lachapelle, where the females died near the full time, but before labour had commenced.

For my own part, I consider all these opinions as partially correct, though it would be difficult by them to account for every case. In general, I believe these presentations to be mere transpositions of the vertex, from the head moving on its transverse axis, and thereby causing the chin to leave the sternum, and first the forehead and then the face coming down. In confirmation of this we have only to allude to those cases where the change has been observed to take place during labour. I myself have witnessed cases, where, at the commencement of labour, the head

could be detected resting on the brim, but as the process advanced the face came down. Rigby mentions having seen cases, "where the presentation was midway between one of the cranium and the face," in which the face ultimately presented. Merriman, on the other hand, observes, "that he has twice known the presentation of the face, converted by the pains alone, into a natural presentation." (*Synopsis*, p. 48.)

Mr Ziegler some time ago, at the Obstetrical Society, mentioned an ingenious way of accounting for face presentations, on the supposition, that the hands of the fœtus, being forced down from the breast against the chin by the action of the uterus, pushed it from the sternum, and occupying the space between them, forced the chin down, and of necessity caused the face to descend. Mr Ziegler stated at the same time, that it was from observing the hands come down immediately after the head in face cases, that he had been led to form this opinion.

Varieties of Face Presentations.—These, like those of the cranium, have been most perplexingly and unnecessarily multiplied. In both it has been too much the custom to describe the varieties which authors *could* make, instead of carefully examining those which really exist in nature; thus forgetting one of the first rules of the illustrious Bacon—"*neque fingendum aut excogitandum sed inveniendum quid natura faciat aut ferat.*" Systematic authors, Baudelocque, Burns, Campbell, &c., enumerate six varieties, viz. with the chin to either *acetabulum*, either *sacro-iliac symphysis*, *pubes*, or *sacrum*. Some contrive to make even more. Nægelè, and Mme. Lachapelle, two greater names than whom, either for extent of experience, or carefulness of observation, scarcely can be found, limit these varieties to two.

This division has the advantage both of simplicity, and of comprising all the real varieties to be met with in practice. If, as we have just stated, face cases are transpositions, inversions, as it were, of the vertex, surely we ought not to have more varieties of the face than of the head itself. True it is, that, strictly speaking, we have four different positions of the cranium; but as Rigby has very ably shown in his late publication, these may all be included under two. The simplicity of this arrangement is peculiarly advantageous in face presentations, because it does away with the perplexity and confusion which the multiplicity of varieties under the old method always occasioned.

The first position of the face is where the forehead is to the left acetabulum, and the chin is to the right sacro-iliac symphysis,—is where the chin is to the *right ileum;* this corresponds to the first and fourth positions of the vertex; the *right cheek* forms the presenting part, and as in cranial presentations the caput succedaneum is situated on the right parietal bone, so here it is on the right cheek.

The second position is where the chin is to the *left ileum;* this corresponds to the second and third positions of the vertex; the left cheek forms the presenting part, and on it the swelling is situated.[1]

The relative position of these two varieties is stated as follows:—

	First variety.	Second variety.
Madame Boivin . . .	41	31
Lachapelle	58	45
Nægelè	14	8

Mechanism.—In the first position, the face enters the pelvic cavity, with the chin towards the right ileum, the right cheek being lowest down, and forming the presenting part. As it descends, the chin glides forward till it arrives at the pubes, while the head, in the same proportion, moves into the hollow of the sacrum. The expulsive power continuing, the chin emerges from beneath the pubic arch, followed by the head, sweeping and distending the perineum enormously.

In the second position, the face descends in a similar manner; and the chin, as in the former, is placed under the pubic arch. The left cheek forms the presenting part, and the chin, instead of moving from right to left, as in the first position, passes in this from left to right.

Another explanation has been given, viz., that the forehead arrives at the pubic arch, but, being too broad to pass under, is forced up behind the symphysis pubis, while the chin at the same time traverses the perineum. But this evidently is impossible when the child is of the natural size, for to allow the head to pass in this way, would require a neck of at least eight inches in length.

According to Smellie, Ryan, &c., occasionally the face comes in apposition with the coccyx, the long diameter of the face being in the antero-posterior diameter of the pelvis; but this cannot take place unless the fœtus be immature, because, in the course of delivery, the head and breast of the child would be engaged in the antero-posterior diameter of the pelvis at the same time.

From the account of the mechanism which has just been given, we see there exists evidently a close analogy between face presentations and those of the cranium. The great difference between them is, in the latter, the head forms a cone, passing with

[1] In formerly lecturing, I used to describe these two positions thus:—*First,* With the forehead to the left acetabulum, and the chin to the right sacro-iliac symphysis. *Second,* With the forehead to the right acetabulum, and the chin to the left sacro-iliac symphysis. But as the face does not always observe the exact obliquity here described, and as the above is much more simple, and for all practical purposes sufficient, I prefer it.

the apex first; whereas in the former, the base of the cone passes first, and perhaps there is also a slight increase in the size of the tumour. But it is not so much any increase of size that we are to look to, as the incompressible nature of the bones of the face, and, consequently, the impossibility of their being moulded or adapted, as it were, to the passages, in the way the head can. Burns, although an advocate for interference in these presentations, after giving the minute measurements of the face, makes the following statements:—"On comparing these dimensions with the capacity of the pelvis, we see that there is space for the head to pass, though not so easily as when it presents naturally." (*Midwifery*, p. 431.)

If, then, what has just been stated in regard to the nature of face presentations, and their mode of transmission through the pelvis, be correct,—and Nægelè says, that during an extensive practice of twenty years, he has never seen a case where the face took any other direction than the one just described—the conclusion forces itself upon us, that unless some unusual disproportion or deformity exists, nature should be able to accomplish delivery without the aid of art.

Treatment.—1. *Rectifying the position.* "By raising the forehead, and turning the vertex obliquely down, and directing it to the left acetabulum." (Burns, op. cit. p. 432.) Several of our leading authors have, with Burns, under some restrictions, recommended this mode of treatment; and we feel convinced that it too often is had recourse to in the present day, with any but advantageous results. Ramsbotham, in reference to it, says, "that it is impossible, by any counter-pressure, to make a beneficial change in the situation of the head under a face presentation."

Any one reflecting on the size of the head, which, in its occipito-mental diameter is five inches, and the manner in which it is placed in these cases, must see at once that it is physically impossible to turn the head in this axis through the cavity of the pelvis, which is only four inches and a half, so as to make the chin approach the sternum, and allow the vertex to come down.

Therefore I have no hesitation in saying, that not only can no good be obtained by attempting this change of position, but that there is a risk of doing positive harm by interfering with the mode of delivery which nature, as we have already pointed out, takes in those cases.

2. *Turning.*—This mode of treatment is the oldest, but, as we took occasion to mention, is still recommended by some of the most recent authorities in the present day, men whose opinions, from the position they occupy, unfortunately in the present instance, must have considerable weight with the profession.

The objections which we have to offer to turning are:—

1. That it subjects the woman to considerable risk.

2. That more children are lost in footling cases, whether original presentations, or made so by turning, than in face presentations when left to nature.

3. That the operation is unnecessary and uncalled for, because nature, without the assistance of art, can accomplish delivery.

That the operation of turning subjects the *woman* to considerable risk scarcely any one can doubt. By referring to the published reports of different hospitals, or the valuable statistical data collected by Churchill, we find that turning proves fatal to the female in the proportion of about 1 out of every 15, where it is had recourse to. Some have objected, that it is unfair to take *all* the cases where this operation is required, some of which, placenta prævia, for example, from their nature alone subject the woman to considerable risk, and compare them with face presentations, where no such danger exists. But these cases are so few, as scarcely to influence the calculation, when taken from all cases on a large scale like the present.

Others, again, have brought forward individual cases where they have turned successfully in face cases,—I myself can do the same. The second case of midwifery which I attended after settling in country practice, was a face presentation, where I turned successfully, both as regarded mother and child. But, on the other hand, I know of cases where every precaution was taken, where the operation was performed with all the skill and dexterity which ample opportunity and experience could give, where both mother and child have been lost.

"Are we then justified," to use the words of a late able reviewer, "in subjecting any woman to even a fraction of this danger in rectifying or attempting to rectify a presentation, any supposed difficulties connected with which, nature every day shows to us, she can easily overcome without the assistance of art."

The second objection seems equally well founded. In original footling cases, it is calculated that 1 in every 4 children is lost from pressure on the cord and other causes, which we need not allude to here; while in the operation of turning, Churchill has shown, by taking the results of no less than 542 cases, that the mortality to children thus brought into the world is 1 in 3. Contrast this with the mortality to children in face presentations, where no interference takes place. This is well seen in the following table:—

Authors.	No. of Face Cases.	No. of Children Lost.
Boer,	80	4
Chevreuil,	18	3
Collins,	43	4
Total,	131	11

This gives a mortality of 11 in 131; but if we deduct one of Collins' cases, which was a (anencephalous) monster, it makes only a loss of 10 children, or 1 in 13.[1]

But the last is the strongest objection of all, viz. that the operation is unnecessary and uncalled for. When speaking of the mechanism of face presentations, I endeavoured to show that there existed such an adaptation between the dimensions of the face and the capacity of the pelvis through which it had to pass, as to leave little room for doubt as to the capability of the one being able to be transmitted through the other by the natural efforts alone. But this doubt, if any did exist, is proved, beyond the reach of any fallacy to which the rule or compass, however carefully applied, is liable, by experience on living nature, taken, not merely from the observation of one individual, but of several, who, from their situation as physicians to large hospitals, must have had every means of verifying or refuting this important fact. The mass of evidence is now so great—amounting to no less than 412 cases, and many more might be added—as, I trust, for ever to decide this question, and to establish as a law in practical midwifery, that in all ordinary face presentations, nature is capable of accomplishing delivery. The evidence I now bring forward in a tabular form.

Authors.	Hospital, &c.	No. of Face Cases which terminated without assistance.	Reference.
Zeller.	Vienna.	43	Observat. sur differens objets relatifs à l'Art des Accouchemens, &c. Vienna, 1789.
Boer.	Do.	80	Boer, Natürliches Geburtshülfe, erstes buch, p. 137.
Chevreuil.	Maternité Hospital, Angers.	18	Manuel d'Accouch. p. 84, 1826.
Collins.	Dublin.	33	Practical Treatise, p. 33.
Velpeau.	Paris.	6	Traité de l'Art des Accouch. vol. i. p. 526.
Bang.	Copenhagen.	10	Soc. Méd. de Copenhagen, &c. 1818.
Pacoud.	Bourg.	100	Maternité de Bourg. &c. Fevrier 1833.
Kilian.	Prague.	122	Bulletin de Ferussac, tom. xxv. p. 352.
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But though we have taken some pains to prove, that in face presentations, it is not necessary either to change the position of the head, or to turn the child, in order to accomplish delivery,

[1] This might be made even lower, because Chevreuil mentions, that in his three fatal cases, death was supposed to have taken place before delivery.

yet there are several points, which render their treatment different from ordinary cranial presentations. As we have already stated, the head in face cases occupies a less favourable position for transmission, than in ordinary presentations, and from the nature of the bones of the face, they can neither overlap each other, nor adapt themselves with the same facility to the passages that the head did, it is obvious that we require to take every precaution to ensure complete relaxation of the passages, and carefully to avoid every thing at all calculated to retard uterine action. These indications are best fulfilled:

1. By bleeding, provided there exists no contra-indication, on the part of the patient, to prevent it. In first labours, where there usually exists more rigidity of the passages than subsequently, this remedy is particularly called for.

2. The membranes should be preserved entire as long as possible. By so doing, we secure more complete dilatation of the parts, and prevent many of the injurious effects of pressure, both on the mother and the child.

3. The bladder and rectum should be emptied. The former viscus requires to be carefully watched, because, from the pressure of the chin on the urethra, retention of urine is very liable to take place.

4. A frequent cause of protraction, is the descent of a portion of the os and cervix uteri, which, becoming wedged between the head and the pelvis, is productive of serious inconvenience, to say nothing of pain and danger to the patient. This, as Hamilton pointed out in other cases, may be readily overcome, by carefully and gently supporting the os uteri during each pain, till the presenting portion descends, and the protruded portion recedes.

A caution should also be added to support the perineum carefully, because, from the enormous distension to which it is subjected, it is much more liable to be lacerated than in ordinary cases.

A common impression in face presentations, is, that the delivery necessarily must be tedious and of long duration. This, however, is incorrect. In the Dublin Hospital five cases terminated within an hour; eight during the second hour; and fourteen between the third and the sixth hour. In Guy's Hospital practice, thirteen terminated within twelve hours; nine within eighteen hours; and of the remaining two, one lasted twenty-one hours, and the other twenty-nine.

But in face cases, difficulties and delay may arise in the same way, and from the same causes, as in cranial presentations. Here the same principles must regulate the treatment, whether nature can any longer be trusted, or recourse should be had to instrumental assistance.

With regard to the kind of instrument, most authors prefer

the lever to the forceps, and they recommend it to be passed into the hollow of the sacrum over the occiput, as a tractor, in order to make the occiput descend. Considering how completely the hollow of the sacrum is filled by the cranial tumour in these cases, and the difficulty there is of introducing any instrument in this direction, coupled with the fact, that it is not the occiput but the chin which ought first to descend, I would humbly suggest, that in most cases the forceps will be found the best instrument. But whichever instrument we prefer, the great point is to remember the mechanism of these cases, and in the course of the delivery, ever to make the head descend in the direction which nature herself has pointed out. By forgetting this, or bringing the head down in a different manner, delivery by the forceps or lever becomes impracticable, and then the only resource left is to terminate labour by the perforator.

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