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

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SECT. VI.—THE DEPRESSION AND INDENTATION DURING LABOUR OF THE SIDES OF THE INFANTILE CRANIUM, IS COMPATIBLE WITH THE LIFE OF THE CHILD.

Among the advantages of turning as compared with embryulcio, I have stated that "it gives the child a chance of life," and that the "neck of the child, if it be living or only recently dead, is so strong as to allow us to exert such a degree of traction upon the obstructed head, that the sides of the cranium may become greatly compressed or even indented under it; and that without necessarily destroying the child."†

As a comment upon these statements, Dr. Radford observes, "It has been said that the neck of the child alive, or recently dead, is so strong as to allow such a degree of force to be used as to greatly compress the sides of the cranium; but (he adds,) *such a procedure is at variance with all scientific views, and incompatible with the safety of both mother and child.*"‡

The accuracy or inaccuracy of the two different, and indeed, opposite opinions, thus expressed upon the same point by Dr. Radford and myself, is one of those questions in pathology which no mere opinion or mere reasoning could ever settle. In order to decide it, we must have recourse to facts and experience alone. And it is of the highest moment in relation to the whole object of the present enquiry, that the evidence on the matter be as perfect and unequivocal as possible; for, in fact, the practice proposed is based in the main, on the fundamental idea that the required compression and indentation of the infantile skull is *not* incompatible—as craniotomy is—with the continuance of infantile life.

Now, the records of midwifery contain numerous accurately-observed cases in which the cranium of the

child has become greatly compressed or flattened, or actually depressed and indented in one of its sides, while passing through a very contracted pelvis, and that too, without necessarily destroying the life of the infant. Velpeau, for instance, the only author whom Dr. Radford quotes, tells us in a part of his work, which has evidently escaped Dr. Radford's observation, that the depression or "indentation (*enfouissement*) of the parietal or frontal bone, with or without fracture, has been noticed several times at the Maternity Hospital of Paris." * * * And "If (he observes,) the fracture or depression of the bones is not accompanied with effusion, nature ordinarily suffices to restore things to their primary state, and charges herself with the burden of the cure. Otherwise death is the usual consequence of them, or at least they produce drowsiness (*assoupissement*) and a great tendency to convulsions."*

Chaussier, who tells us that he had reported some examples of these depressions and indentations of the infantile skull in 1807 and 1810, makes the following judicious observations upon their general pathology and effects. "Sometimes," he observes, "when the sacrovertebral angle projects too far forward, we find on the portion of bone which rested on this prominence an indentation or depression, (*enfouissement ou depression*), at which we often remark several small linear fissures (*éclures*) in the form of a star, proceeding from the centre of the depression, and limited to the internal surface of the bone; at other times the bone is fractured in all its thickness, and its fragments are more or less separated, or forced in upon the brain; most commonly the infant dies in the act of delivery, or a short time after its birth." * * * "These lesions, however, which would," he adds "be always fatal for an adult, do not always terminate so badly in the new-born infant, for, at this age the brain has neither the consistence, nor the action or use which it ought to have subsequently; they even heal easily and spontaneously if the infant be vigorous, and the labour has not been too prolonged."†

Various practical authors have left incidental notices of such cases of depression observed in the skull of the

* Continued from page 89.

† Monthly Journal of Medical Science, 1846-47. p. 718.

‡ Provincial Medical and Surgical Journal, 1847. p. 405.

* *Traité des Accouchemens*, Tom. ii., p. 588.

† *Recueil des Mémoires, &c., sur divers Objets de Médecine Légale*, Paris, 1824. p. 436.

infant at birth, without the life of the child being compromised by the injury. Sometimes the injury has been the result of an excessive degree of compression by the forceps; but more usually it has been produced (as pointed out by Chaussier,) by the head of the infant being strongly crushed against the projecting promontory of the sacrum, and whether the infant passed as a cranial or footling presentation. Dr. Smellie, in his "Collection of lingering cases from a small, narrow, or distorted pelvis," prefaces his observations with this general remark, that "although these labours may seem to be of the same class, and require the same management with those that proceed from a large head, there is an essential difference; for though they are much the same with regard to the efforts of the woman, the operator in these has much less room when he is obliged to assist with his hand, and the child's head is disfigured and compressed into *large indentations*, occasioned by the jetting in of the upper part of the sacrum, and of the vertebræ of the loins."*

In the course of his valuable volumes Dr. Smellie in different parts casually details several instances bearing out this remark, and at the same time shewing that the injury is not necessarily fatal to the infant. I shall abridge some of these cases.

CASE XVIII.—In a woman,† "sickly from her infancy and very much distorted," Dr. Smellie effected the delivery of a living child by a double application of the forceps. "The forceps when first fixed had impressed the forehead, though the mark disappeared in five or six days after birth; but they made a very considerable impression when they were fixed a second time along the ears." The pelvis was "distorted from the jetting forwards of the upper part of the sacrum," and this projection had produced an *indentation*, distinct from those produced by the forceps; "the head was of a lengthened form, and contorted to one side, and there was a *deep impression* above the ear."—"Had the child been large its life could not possibly have been saved."

CASE XIX.‡—The descent of the infant's "head was retarded by a jetting-in at the middle of the sacrum," and the forceps were used. "The child's head was squeezed into a longitudinal form, flattened on the sides, with a *deep impression* on the cranium above the ears; and from an indentation on the os frontis by a blade of the forceps, which had been fixed on that and the occiput, I discovered the ears were not to the sides as I had imagined. These impressions (the author continues,) had very much *galled* and inflamed the parts, but in consequence of proper care they digested, and the child recovered, and as he grew up the marks diminished and disappeared."

Dr. Smellie describes a case of depression and injury

of the infant's cranium at birth that is still more important than the preceding two in reference to the subject of the present inquiry, for in it the cranial indentation was produced in following the very practice which I am discussing,—viz., in turning the infant when the brim of the pelvis was narrow and contracted. The following are the principal particulars:—

CASE XX.*—A patient had "a narrow and distorted pelvis," in consequence of "the three lowest vertebræ of the loins bending forwards." The patient was delivered four times. At her first and third labours the infants were obliged to be extracted by the crotchet. Dr. Smellie tells us that he "managed her second labour from the beginning in a slow and cautious manner; but (adds he,) although the child was small, I with the greatest difficulty saved it by the assistance of the forceps." At her fourth accouchement the shoulder presented. Dr. Smellie tried ineffectually to perform cephalic version, and then with some effort seized one of the legs of the infant and turned it, and extracted it as far as the neck, the head still remaining above the contracted part of the pelvis. After using considerable exertion in order to drag it through the deformed brim, Dr. Smellie states that he began to despair of the child's life, but adds, "as there was still a weak pulsation in the funis, I resolved to make another effort with all my strength, by which the head was moved a little lower; then forcing up my fingers to the forehead, I got a firm hold of it, and finished the delivery." The infant shewed some weak signs of life, and in about ten or fifteen minutes began to cry. "The infant (adds Dr. Smellie,) continuing to cry incessantly while the head was washing, I examined and perceived a large tumour above the right ear; I likewise found a *depression of the temporal bone* before the ear, and the frontal and parietal bones pushed outwards; these formed the swelling, and were the parts that stopped at the distorted bones of the vertebræ." The child was quieted by applying pressure on the tumour with a compress and bandage. Next day the swelling had disappeared. The mother recovered better than in any of her preceding labours.

Dr. Smellie relates another case† in which the head of the child was apparently injured in a similar manner in dragging it through "a distorted pelvis."

CASE XXI.—The infant presented by the breech. After the body and extremities were born, "a good deal of force was used to deliver the head." Five minutes elapsed before the child breathed; at last it began to cry incessantly, "till one of the women observed a large swelling betwixt the left ear and temple." Pressure with the fingers first, and ultimately with a compress, quieted the child in the same manner as in the preceding case. "When I examined it (says Dr. Smellie,) next day, the swelling was gone, and it appeared to have been that part which stopped so long at the projection of the upper part of the sacrum before the head was delivered."

* Collection of Cases and Observations in Midwifery, Vol. ii. p. 358. 2nd Edit. London, 1758.

† *Ibid.*, Vol. ii., p. 458.

‡ *Ibid.*, Vol. ii., p. 461.

* Collection of Cases and Observations, Vol. iii., p. 230.

† Cases and Observations, Vol. iii., p. 95. Collect. 32, Case 11.

Dr. Denman has recorded one exceedingly interesting case, in which the head of the infant was much injured during the version and extraction of it through a deformed pelvis, and that, as in the preceding cases of Dr. Smellie, without compromising the infant's life. The case is altogether so pertinent to the subject of the present remarks, and affords so much important corroborative evidence, that I feel assured I shall be excused in giving the details in full, and in Dr. Denman's own words:—

CASE XXII.—“Many years ago I attended a patient in two labours, in both of which there was a necessity of delivering with instruments, on account of the smallness and distortion of the *pelvis*, and neither of the children could be preserved. In her next pregnancy I made a proposal to bring on premature labour, to which she and her friends would not consent, and I was dismissed from my attendance. In the course of twelve or fourteen years she had five more children, not one of which was born living. In the forty-sixth year of her age she proved with child, and again applied to me. When her labour came on, the first stage was suffered to proceed without interruption, but when the membranes broke, I without delay passed my hand into the *uterus*, and easily brought down the feet and body of the child; but the head being stopped by the narrowness of the superior aperture of the *pelvis*, I was obliged to exert, and continue much force, before it could be extracted. The child was born with very little or no appearance of life, but by the strenuous use of the common means recommended for this purpose, it was recovered. On the left parietal bone there was a depression of considerable extent, and to my apprehension of full one inch in depth, occasioned by the projection of the *sacrum*, but the depressed part gradually rose. In the course of a few months the bone regained its natural form, and the child was for several years in good health, with its faculties perfect. The woman recovered without any untoward circumstance.”

“But (adds Dr. Denman, in a cautious and contradictory note,) the success of such attempts to preserve the life of a child is very precarious; and the operation of turning a child, under the circumstances before stated, is rather to be considered among those things of which an experienced man may sometimes avail himself in critical situations, than as submitting to the ordinary rules of practice.”*

In the second Volume of her “*Pratique des Accouchemens*,” Madame Lachapelle relates the following instance of footling presentation in which the child was born with a depression of the parietal bone:—

CASE XXIII.—A woman, pregnant for the second time, had a large accumulation of liquor amnii, and the child floated so easily in it, that when labour pains first supervened, the presentation altered from time to time. The membranes at last were broken, and the left foot descended. By dragging at this foot, the lower extremities and then the trunk passed with

facility. The left arm, however, got fixed between the head and pubis, and was disengaged with some trouble. “The head, however,” to quote the author's own account, “although directed transversely, offered still greater difficulties in its extraction, either because the pelvis was a little distorted, or because our efforts were not absolutely directed according to the axis of the brim. At all events it is certain, that after the birth of the fœtus we found a *considerable depression* on the right parietal bone, which had rested upon the sacro-vertebral angle. In despite of this lesion, the infant, which was at first apparently still-born, not only lived, but the depression was dissipated, and indeed was scarcely visible fifteen days afterwards. The mother did not experience the slightest bad symptom.”*

Dugés has recorded two cases which came under his observation, in which the cranium was very deeply depressed and indented in the way described in the preceding instances, and yet both children lived and did well.

CASES XXIV and XXV.—In one of these cases of Dugés the frontal bone was so much *depressed*, that the left eye appeared as it were protruded from the orbit; still the child neither suffered from convulsions, nor any other special symptoms. In the second case the child had come footling through a pelvis, the great [conjugate ?] diameter of which was estimated at three and a quarter inches. (*Dont le grand diamètre était évalué à trois pouces un quart.*) The head could not at first be extracted by the aid, even of very strong tractions on the inferior jaw and shoulders, but scarcely were these artificial efforts momentarily suspended, when the head passed rapidly without assistance, and expelled by the action of the abdominal muscles. The left parietal bone which had pressed upon the promontory of the sacrum was *depressed and indented* to the depth of half an inch, and throughout an extent of two inches. Two or three spoonfuls of blood were allowed to escape from the vessels of the cord, which yet beat with sufficient force, although the infant was apparently dead; and betimes the child became gradually re-animated, and began to cry, and passed meconium. It was troubled with constant hiccup, puckering of the lips, and torsion of the mouth to the left side; spasmodic closure of the right eye, immobility of the left; rigidity of the hands; fingers extended, and separate, with the exception of the thumbs, and the last phalanx of one of the index fingers, which were flexed inwards; rigidity of the arms and limbs. These symptoms were remittent, and returned in fits at intervals of ten minutes. Two leeches were applied to the left temple. The fits continued during the evening and night, but gradually became less and less severe. On the morrow the infant drank; it took the breast the following day; and in fifteen days after birth the cranial depression had almost entirely disappeared.

In his “*Manual of Midwifery*,” the same writer (Dugés,) observes,—“The bones of the cranium are often fractured with indentation, by the sacro-vertebral angle of the mother. It is one of the frontal, or one

* Introduction to the Practice of Midwifery, p. 382.

* “Pratique des Accouchemens,” Vol. ii., p. 166.

of the temporal regions, which is the most common seat of these lesions. * * * These fractures often heal spontaneously; the indentations even rise in a few days."*

Jacquemier, one of the latest French writers on midwifery, and from whose work I have quoted Dugés' cases, states that these fractures of the foetal cranium, with depression, are not by themselves a cause of certain death; "the depression," he remarks, "relieves itself by degress, and after ten or fifteen days, there scarcely remain any vestiges of it."†

If it were required I might cite other cases, and remarks of the same description from other authors, in evidence of the fact, that the state of compression and indentation of the bones of the infant's cranium at birth, is not necessarily fatal to the infant's life. Some additional proofs will be quoted in the sequel; in the meantime I have, I believe, stated enough to show,—*first*, that the neck of the child, if it be living, or only lately dead, is so strong, as to allow us to exert such a degree of traction upon the obstructed head, that the sides of the cranium may become greatly compressed, or even indented, under it; and, *secondly*, that Dr. Radford is truly wrong in stating that such a lesion and practice is incompatible with the safety of the child. On the contrary, the recorded experience of Velpeau, Chaussier, Smellie, Denman, Lachapelle, Dugés, Jacquemier, &c. &c., proves (as we have seen,) that the depression and indentation of the child's head do not necessarily destroy the child's life. Nay, Dr. Radford's own experience on this point is, I know, not in favour of his views, but of mine. In evidence of this I shall quote a case in point, recorded by Dr. Radford himself, from his own practice.

CASE XXVI.—"I was requested," says Dr. Radford, "by Mr. Dick, to visit a poor woman in New Blakely Street, who was suffering from protracted labour, caused by contraction of the brim of the pelvis. The long forceps were applied, and the child delivered alive. *A depression of considerable size was produced on the left parietal bone, from the pressure it had sustained from the promontory of the sacrum.* The signs which the child manifested were those of apoplexy. The funis was divided, but no blood followed, as the pulsation had previously ceased. The child continued in the same state during the day, and in the evening was attacked with convulsions, which were frequent. Two leeches were applied to the temples, the bowels were opened, and the child recovered."‡

But further, argues Dr. Radford, such a procedure as I propose is "at variance with all *scientific* views." I shall not stop at present to debate here whether the practice I suggest be "scientific" or not; but in a medical point of view I hold that appellation to be truly merited by any propositions and measures that

tend, like the present, to promote the great essence and object of all medical science,—namely, the preservation of human life; and in the various cases which I have quoted in the preceding sections, while none of the mothers were lost, the lives of the infants were at the same time all saved. But assuredly the heads of most of these children would have been opened by the perforator, and their lives thus destroyed, provided, in each instance, the structure of the cranium had not yielded, and its bony parietes become fortunately depressed, and indented to the degree required to admit of its safe transit through the contracted apertures of the pelvis.

(To be continued.)

CASE OF ACUTE LARYNGITIS,

WITH REMARKS ON DR. WARDELL'S CASES OF SPASMA GLOTTIDIS.

By T. OGIER WARD, M.D., OXON.

In my last communication of an obscure case of sudden death, with enlarged thymus, I alluded to some cases of laryngeal affection, lately published in the *Provincial Medical and Surgical Journal*, by Dr. Wardell, respecting the nature of which I differed from the author; and I stated my intention to recur to the subject at a future period, and to describe a case that had recently fallen under my observation, which seemed to me, though identical in its symptoms with Dr. Wardell's alleged cases of spasm of the glottis, to be purely inflammatory.

November 25th, at 6 p.m., during the prevalence of the influenza, I was requested by a medical friend to take charge of a case during his unavoidable absence, which he considered so urgent that he dared not quit the house without leaving somebody in attendance. When I reached the place, I found the patient, a maid-servant, aged 20, lying in bed in a semi-recumbent posture; she was as red as scarlet, with a flushed and tumid face, bright and prominent eyes, distended nostrils, gasping for breath, and exclaiming in a whisper that she was choking. She was very restless, throwing her arms about, and tossing from side to side with vain attempts to relieve herself from the feeling of suffocation, and breathing with a stridulous sound, very audible as I ran up stairs. Her throat was bleeding from the bites of twenty-four leeches which had just been applied, and yet every moment the dyspnoea was increasing. I was told that she had caught cold at church the previous Sunday, but had taken no notice of it till 4 p.m., this day, when she was seized with sudden pain in the larynx, and dyspnoea, attended with extreme heat of skin, and rapid pulse—150. My friend being in immediate attendance, ordered twenty-four leeches to the throat, which had just dropped off when I saw her. Sensible of the urgency of the case, and that if she were not speedily relieved asphyxia must shortly occur, I determined to perform laryngotomy, if the remedies I proposed to use failed in their effects. I therefore returned home, and though I was not absent

* "Mannet d'Obstetrique," p. 358, 359.

† "Mannet des Accouchemens," Tom. ii., p. 773.

‡ Essays on various subjects connected with Midwifery, p. 11.