RECENT PROGRESS IN OBSTETRICS AND GYNÆCOLOGY.

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OBSTETRICS.

Chloroform as an Anæsthetic. — Dr. Zweifel reports¹ the results of some experiments which he made, with a view of ascertaining the effect on the child in utero of chloroform administered to the mother. He invariably found that chloroform was present in the urine of children whose mothers had been under the influence of chloroform during parturition, and also in the placenta. Dr. Zweifel questions whether the administration of chloroform may not be found to have a very deleterious effect on the fœtus in utero. Not unfrequently children are born asphyxiated under such circumstances. It is also very noticeable that many children suffer, soon after birth, from jaundice, when the mother has been under the influence of chloroform during her labor.

Uterine Souffle after Confinement. — M. Bailly reports² some interesting facts which he has obtained from a careful examination of seventy-eight women. A bruit was discoverable sixty-eight times. In the large majority of cases the tone was soft, liquid, and prolonged. It was always intermittent, the duration being longer than the pause. The intensity about equalled the souffle heard between the fourth and fifth months of pregnancy. The larger the uterus, the louder the sound. Three or four times it was as loud on the morrow of the confinement as at the end of pregnancy. The sound was generally heard over the sides or over the lower half of the uterus, rarely over the superior half. It predominates on the left side. The maximum time during which the bruit was heard after delivery was one hundred and thirty-eight hours; the minimum, ten hours; the mean, sixty-three hours. The uterine contractions, the fetal death occurring in utero long previous to the delivery, and profuse hæmorrhages, all tend to influence the force and duration of the souffle. The first of these circumstances enfeebles the sound, the last two increase its tone. The origin of the sound is the passage of blood from the smaller into the larger vessels or sinuses.

Uterine Thermometry. — Dr. Schlesinger reports³ the following results of a long series of investigations made with a view of ascertaining if it was possible, by means of the thermometer, to diagnose pregnancy during the earlier months. The temperature of the uterine cavity is higher than that of the vagina. The pregnant uterus has a higher temperature than the non-pregnant.

Recognizing the fact that the temperature of the uterus, both in the

¹ Berliner klinische Wochenschrift, May 25, 1874.

² Archives de Tocologie, 1874; London Medical Record, October 21, 1874.

³ Allgemeine Zeitung, March 10, 1874.

pregnant and in the non-pregnant condition, is higher than that of the vagina, Schroeder considers that the death of the fœtus may be inferred in those cases in which the difference between the vaginal and uterine temperature is either very slight or imperceptible; since, when the fœtus dies, it abstracts some heat from the uterus itself, and thus equalizes the temperature of the uterus and vagina.

Induction of Premature Labor. — Dr. J. G. Swayne reports¹ twenty cases in which he induced premature labor; seventeen were multiparæ and three primiparæ. In one case the operation was performed three times, and in three cases twice on the same subject. Fourteen of the operations were performed anticipatory of craniotomy, owing to a deformed pelvis; three times the labor was induced owing to obstinate vomiting, and three times for albuminuria threatening convulsions. Three of the mothers died, two being *in extremis* when the operation was performed. Eleven of the infants were still-born, and two of those born alive subsequently died. In seventeen cases labor was induced by a gradual dilatation of the os uteri by means of carbolized sponge tents. This method of procedure Dr. Swayne recommends as more nearly resembling the natural processes than any other. The time occupied in bringing on the labor in these cases varied from six hours to sixteen days.

In cases where prompt delivery is necessary, the use of Dr. Barnes's elastic bags is more sure and rapid in accomplishing the desired object. In all other cases, Dr. Swayne considers a gradual dilatation a far safer method of procedure.

Prof. Carl Braun opposes² the use of sponge tents as being often productive of most serious if not fatal results. Parametritis and pyæmic symptoms frequently arise from the absorption of the foul discharges which always follow their use. He advises in preference to all other plans the method, now universally adopted in Vienna, of the introduction of a pointed quill by means of a uterine sound passed through a small opening made in the side. This being introduced, the sound is withdrawn, and the membranes ruptured by the quill. The amniotic fluid drains away, and, labor pains soon beginning, the delivery is usually effected within twelve hours.

Rigor following Delivery. — Dr. Pfannkuch offers³ the following explanation of the rigor which is so frequently observed to follow the birth of a child. According to experiment, the fœtal temperature has been shown to be nine tenths of a degree higher than that of the mother. The maternal temperature, however, being unaltered, it is evident that the pregnant woman must be producing less warmth than the non-pregnant. When the fœtal source of heat is removed by the birth of the

¹ British Medical Journal, August 8, 1874.

² Philadelphia Medical Times, January 23, 1875.

³ Archiv für Gynäkologie, iv. 2.

child, there is produced at once a disproportion between the amount of heat produced and that given off. The rigor is caused, therefore, by the efforts made by nature to establish an equilibrium.

The same rigors are frequently noticed when the child dies during pregnancy. In several cases which Dr. Pfannkuch has recently seen, where the mother gave birth to a dead child, no rigors followed the birth; and this would serve to strengthen the theory by which this observer endeavors to explain a symptom so frequently noticed by accoucheurs.

Puerperal Fever. — In the address in obstetrics, delivered at the last annual meeting of the British Medical Association,¹ Dr. J. Matthews Duncan stated that it was his belief that nearly one in every one hundred women, delivered in Great Britain at or near the full time, died in parturition or before the puerperal state and its effects had passed away. In addition to this startling mortality, parturition brings with it a vast amount of disease and suffering which does not end fatally. By far the largest number of deaths are due to puerperal pyæmia, a term which Dr. Duncan would substitute for the erroneous one of puerperal fever, since there is nothing essentially puerperal known in it, nor anything of the nature of a fever as that term is generally understood. All evidence brings the disease into the closest alliance or identity with surgical pyæmia. It is a disease always present; but never has it been shown to possess an epidemic character. It varies in its ravages just as pneumonia does, but in a very different manner from what is found to be the case with cholera or scarlatina. The puerperal woman presents a most favorable nidus for the reception of morbid material in her contused and lacerated passages, and patients suffering from puerperal pyæmia, or any allied diseases, offer this morbid material in its most potent essence. No other well-demonstrated communicability has ever been proven, as tending to show that this disease is either contagious or infectious. The same laws of pathology govern lying-in hospitals as govern all hospitals, and it is absurd to claim that any greater danger exists for patients in one than for those in the other. Beyond question, pyæmia is a septic disease, and puerperal pyæmia may be almost if not altogether prevented by the application to delivery of a practice based on antiseptic principles.

In a carefully prepared treatise on Erysipelas and Puerperal Fever, recently published, the author, Dr. Thomas C. Minor, gives in detail an account of both diseases as they prevailed sporadically in the United States during the year 1870, and also the history of a puerperal fever epidemic observed in the southwestern part of Ohio in the winter of 1872. The facts, as given by Dr. Minor, appear to establish the fact that erysipelas and puerperal fever seem to prevail together throughout the

¹ Obstetrical Journal of Great Britain, September, 1874.

United States, and that any marked increase of one disease in any particular locality is always followed by a corresponding increase of the other. Infants die of erysipelas shortly after or before their mothers die of puerperal disease.

M. Chauffard¹ considers that any disease which produces morbid discharges may give rise, in women recently confined, to puerperal fever. During his service at the Neckar Hospital, he has frequently remarked that the opening of an abscess, or the presence in the wards of purulent ophthalmia or erysipelas, is sure to be followed in a short time by puerperal troubles of greater or less severity.

Absence of the Fœtal Pulse during Extraction by the Feet.—Professor Dohen, of Marburg, reports² two cases where, during an extraction by the feet, the fœtal pulse ceased for a considerable length of time, and yet with no fatal result to the child. In both cases the pelvis was contracted, and the pulse was distinctly felt to cease beating as the after-coming head descended into the pelvis. In the first case the cardiac pulsations were suspended for at least two minutes, and in the second case for more than three minutes. In the first case the baby, a girl, was reanimated in a warm bath after about a quarter of an hour's effort; but in the second case the measures to resuscitate the infant, a boy, were continued for half an hour before the frequency of the inspiratory and pulse movements became normal.

Professor Dohen considers that the arrest of the heart in these two cases was due to the compression of the brain and irritation of the pneumogastric. In cases where the arrest of the heart's beat is due to asphyxia there is but little hope of saving the child's life, but where the action of the pulse is slackened or arrested by compression of the brain, a rapid extraction of the head will usually be sufficient to save the life of the infant.

These views are strictly in accordance with the theory of Leyden,³ who has shown that the compression of the brain which slackens the heart's beats may also completely arrest them, and that this action is produced by the help of the pneumogastric.

The Tensile Strength of the Fœtus.—Dr. J. Matthews Duncan reports⁴ a series of experiments undertaken to ascertain the amount of force which can safely be applied in effecting the delivery of a child. The body of a new-born baby was passed through an aperture so cut in hard wood as to represent the brim of a contracted pelvis. Above the ankle, an apparatus was applied by which weights could be suspended. The amount of the weights used was to be gradually increased until the

¹ Gazette Hebdomadaire, October 16, 1874.

² Obstetrical Journal of Great Britain and Ireland, January, 1875, from Archives de Tocologie, October, 1874.

³ Virchow's Archiv, xxxvii. 4.

⁴ British Medical Journal, December 19, 1874.

body of the child was dissevered. In order to bring the experiment into conditions analogous with those of labor, the weights were allowed to operate for only half a minute at a time. In each experiment the separation took place at the neck. The decapitating force varied from ninety-one to one hundred and forty-one pounds, giving, therefore, an average of about one hundred and twenty pounds.

The life of the child is, of course, compromised before the limit of the tensile strength of the fœtus is reached, since the destruction of the spinal column occurs under the application of a force considerably less than is required to produce decapitation.

In these experiments it was found that the cervical part of the vertebral column first gave way, allowing the dissevered vertebræ to become widely separated before actual decapitation took place. While one hundred and five pounds sufficed to separate the cervical vertebræ, an addition of fifteen pounds was required to decapitate. In all cases the vertebral column yielded with a jerk, followed by a marked elongation of the fœtal body. This fact is therefore one of great importance to the accoucheur if he wishes to avoid decapitation. It was further found that a single limb, so far as strength was concerned, sufficed to effect decapitation by traction.

These experiments are of great value as regards the force that may safely be employed in podalic extraction; but it was found a far more difficult problem to ascertain the power that may safely be applied in extracting a child with the forceps. In this latter case, a far greater force can be exerted than in the former. It has been proven that it is possible to apply the forceps to a fœtal head at the brim of an actual pelvis so as to defy the utmost efforts of the most powerful accoucheur. The fœtal head is firm enough to resist a dragging force far greater than can be used in podalic extraction.

(To be concluded.)

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M. D., SECRETARY.

DECEMBER 28, 1874. *Ovarian Cyst.*—A fine specimen of a monocusc holding five gallons of fluid was exhibited by DR. W. G. WHEELER, of Chelsea, who related the following history of the case. The patient was a feeble woman, fifty-four years of age, who had been delivered of five still-born children. She was small in size, of medium height, and much emaciated. She said that the abdomen had been gradually enlarging during the last five years, and now (December 17, 1874) measured fifty-two inches. There was a distinct wave on percussion. Resonance was found in both flanks but not in front. The