

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, MAY 16, 1872.

[VOL. IX.—No. 20.]

Original Communications.

OBSTETRICS IN VIENNA.

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DEEP down among my recollections of the embryonic period of my professional life—so deep, indeed, that the shadowy, ill-defined memories blend themselves with the mythological reminiscences of college studies, and borrow from them a hue of mixed fable and fact, which renders their testimony to some extent unreliable, perhaps, I find traces of a record of medical experience, which is not wholly without interest, even now.

It was narrated to me by an early and intimate friend (a member of the medical profession), as having occurred in a hospital in a certain city north of *Mason and Dixon's* line, in which he discharged the functions of one of the Internes, while prosecuting his medical and surgical studies. I know it to be a truthful record of medical experience, and I write it, as nearly as I can now remember, in the words of the narrator, being in a measure pertinent, and *ad rem* to the subject of this communication.

"A young lady, of very fine development, of modest deportment and prepossessing manners, had occasion to apply for medical assistance and treatment at the hospital, on account of an acute tumor in the abdomen, which had made its appearance suddenly, had grown rapidly, and for the occurrence of which she could assign no cause, &c. &c. Her address, and the peculiarity of her case, as she represented it, secured for her admission to the hospital at once.

"She became, immediately, an object of great interest and solicitude to the philanthropic and gentlemanly physician under whose care she was placed. Examinations were made, and consultations were held over the case; theories were suggested, and all possible kinds of tumors were discussed, but no conclusion could be reached

as to the nature of the disease. The worthy physician in attendance, with a consideration that certainly spoke well for his goodness of heart, being unwilling to make, or cause to be made, a vaginal examination, because he did not wish to do the lady the injury of rupturing the hymen, and thus destroying the evidences of virginity, if a satisfactory conclusion could be reached without doing so. The case continued in this unsettled state of diagnosis for a period measurable by weeks rather than days (if my memory serves me correctly). The lady occupied her place in the ward with patience and resignation, although the tumor seemed to become more alarming rather than to give hope of improvement, until, one day, '*Nature*' came to the assistance of the puzzled professor, and forced the patient herself to solve the problem and remove all doubts as to the character of her ailment, by safely giving birth to a vigorous child.

"It is scarcely necessary to say that the students did not see her smiling countenance at her usual place in the ward during her convalescence; and it may not be presumptuous, perhaps, for us to conjecture that the good-hearted professor became convinced by this event that even *he* was not beyond the possibility of deriving benefit from a practical lesson."

My reason for making use of such an old and perhaps unwelcome memory at this time is that it comes in, in very good stead, as an introduction to a few remarks I send in reference to the way in which some things are managed in Vienna; and, also, because I have wondered whether such an unfortunate occurrence could have happened to a physician here, where the obstetricians are supposed to be able to diagnosticate not only the existence of pregnancy, but also the position of the child in the uterus, the presentation and the probable time of delivery, *from external manipulation alone*, although, usually, they confirm their diagnoses, and determine whether the patient is a primipara or a multipara, by vaginal examinations, too.

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It has been stated in this JOURNAL, already, when speaking of the obstetric department of the Hospital in Vienna, that, annually, more than 8000 pregnant women are received and delivered of their children in this institution. With such numbers to care for—numbers which very rapidly multiply small items of habitual waste into enormous unnecessary expenses—it becomes imperative, of course, that a constant and careful supervision should be exercised. Every day that a patient remains in the hospital she adds somewhat to the bill of expenses. Every day that she remains a *patient* when her condition does not require it, she increases the amount of waste, and thus, both *before* and *after* delivery, the humanity and judgment of the physician are put to the test, and he must constantly determine to what extent kindness may be exercised towards the patient or applicant, without doing injustice to the hospital. The regulations limit the period of a patient's stay in the hospital, including the time of labor, and convalescence therefrom, to (67) sixty-seven days, *i. e.* unless some complication occurs after delivery to render prolonged treatment necessary; and in consequence of this, before a pregnant woman applying for admission can be accepted, it becomes the duty of the physician to determine whether she is in fact pregnant, and about what time in the natural course of events she will be confined, so that, allowing a proper time for her to stay in the hospital after delivery, her whole sojourn may not exceed the limited period.

The diagnosis and prognosis, in these cases, must, of course, be made independently of any statements made by the women themselves, because many of the poor creatures are so anxious to find a place of refuge that they would readily misstate facts to their own advantage, if their testimony were called for (*i. e.* presupposing that they know enough to state anything with intelligence), and as a matter of fact no questions are asked the women—the diagnoses are made without their assistance.

The regulations, in reference to the period at which a woman may be admitted to the hospital, are not so rigid as to prevent exceptions in cases of special interest, when the professor deems proper. And in *malformations*, or cases outside of the usual course of nature, the utmost freedom of admission is exercised. Not so much for the benefit of the patient, however, as for that of the student.

As the reception of patients advanced in

pregnancy becomes a part of the regular business of the hospital, of course regular hours have been established when they may present themselves to have their cases passed upon; and the examination of women applying for admission takes place, regularly, every afternoon at 5 o'clock.

The term "*Aufnahme*" is the technical name by which these receptions are known. They apply, of course, only to such women as are not in actual labor, as these latter are admitted without ceremony at any time; and it is the more than common occurrence to have poor women brought into the hospital in the different stages of parturition; many of them, perhaps, after having been laboring in vain under the superintendence of midwives outside, and of private practitioners, who had been called to their assistance.

The receptions are divided between the two divisions of the obstetric department, superintended respectively by Professors Spaeth and Braun. On *Tuesdays, Fridays* and *Sundays*, Prof. Spaeth has the *Aufnahme* or Reception, on the other four days of the week the applicants for admission being committed to the tender mercies of Prof. Braun. And, so far as the patients are concerned, there is certainly a choice between the two, for the patients of the former are not exposed to the manipulations of the students, because he lectures only to the young women who are being educated as midwives, and on this account is not interested in converting his wards into a general educational establishment. But the receptions in Prof. Braun's wards, on the contrary, are always well attended, because *here* the students are granted an unrestricted license to go through with the processes of examination upon all those applicants who, upon examination by the physician on duty, have been found to come within the proper period for admission, and who have, in consequence, been accepted. The applicants who, upon examination by the physician, have been found to be, as yet, insufficiently advanced in pregnancy to justify their admission in accordance with the regulations, are allowed to arise, dress themselves and go their way unmolested, to present themselves, if they wish to, again, at a later period.

With such arrangements for the admission of patients, and with the amount of practice, in this kind of work, that the ordinary business of the hospital throws upon the attending physicians, it is natural that they should acquire a special aptitude for making diagnoses in these cases. Very

little time is consumed in examining the patients who present themselves. They are received or dismissed, without any questions or any hesitation, upon the testimony of the objective signs alone, and blunders do not occur to taunt the admitting physician with his mistake, during an unnecessarily long sojourn of the patient.

Are all your readers familiar with the manner in which these examinations are made; with the theories which lead to the methods of diagnosis? If not, perhaps it will not be received unkindly if I attempt to give a cursory outline of them.

The points to be determined when applicants present themselves for admission to the obstetric department of the hospital, are:—

1st. The age of the pregnancy, which involves, of course, the question of the actual existence of pregnancy.

2d. The position of the child in the uterus; and

3d. Whether the woman is a primipara or a multipara.

First. In relation to the age of pregnancy. The whole term of gestation is divided into ten periods, commonly called months here, under the impression that they constitute lunar months; and without stopping to question the correctness of the astronomy, as any name that is understood will answer the purposes of explanation sufficiently well now, we will use the term as synonymous with "period," which expresses the theory just as well, and is perhaps more correct in point of fact. Dividing, then, the whole term of gestation into ten periods, the *pubes*, the *umbilicus* and the *ensiform cartilage* become the fixed points which enter into the making of the diagnosis. When pregnancy is three months advanced the uterus is increased in size, has reached as high as the upper strait of the pelvis and may be felt at the pubes. At six months, or at the sixth period, it is as high as the umbilicus, and the ninth period has been fully accomplished when the ensiform cartilage has been reached; the intervening periods being determined by subdividing, evenly, these primary divisions.

While the uterus has thus been increasing gradually in size, however, up to the end of the ninth period, the presenting part of the child has been movable; it has not as yet become engaged in the pelvis and is not fixed. This condition continues until the completion of the ninth month, but at the beginning of the *tenth* month, or period, a new order of things sets in. The presenting part gradually settles itself into

the cavity of the pelvis and becomes to an extent immovable; and as "it progresses in its descent and becomes more and more fixed in the pelvis," the uterus also subsides from the height it had attained at the completion of the ninth period. A settling occurs with it, too, and some of the altitudes which it traversed, in growing up to the ensiform cartilage, become of necessity retraversed, as it settles down again, until, at the end of the tenth period, it has descended to the level it occupied at the end of the eighth period.

This latter circumstance, of course, renders the mere height of the uterus alone, after the end of the eighth period, an uncertain sign upon which to base a diagnosis, as a pregnancy of eight and a half periods would show a tumor of the same elevation as one of nine and a half periods; in this latter case the uterus having already reached the ensiform cartilage at the completion of the ninth month, and having subsided, on account of the sinking of the presenting part into the pelvis, so as to pass through positions occupied before. In estimating the meaning of the height of the uterus, therefore, as a sign of the age of pregnancy after the end of the eighth period, it becomes necessary to recognize the cause of the complication, viz., the settling of the presenting part into the pelvis, and thus secure a means of removing doubt. At any time *before* the completion of the ninth period, the presenting part of the child is not engaged in the pelvis. If the head presents, it is what is designated a "high head," and is easily movable—it is free; while *after* the completion of the ninth period the part becomes gradually more and more fixed as it descends, its movement becomes restricted, and as it is easy to feel the presenting part through the walls of the abdomen, the mobility or immobility enables the physician to give the proper meaning to the height of the uterus. If the uterus is below the ensiform cartilage, and the presenting part of the child is fixed, the ninth period has been passed. If the uterus is below the ensiform cartilage and the presenting part is still movable, the ninth month, or rather the ninth period, has not been completed; and the distance of the fundus of the womb from the fixed point mentioned already, enables one to determine the actual age of the pregnancy.

Another point that has some meaning when considering the age of the pregnancy, although I have not noticed that it is dwelt upon much, is that after the com-

pletion of the ninth period, the uterus is thrown forward more than was the case previously; the direction of its axis becomes changed, and this fact may enter into consideration as an assistance towards making the diagnosis.

Second. The position of the child in the uterus.

In addition to the ability acquired by constant practice of feeling, through the walls of the abdomen, the position of the child in the womb, the sounds of the foetal heart are made use of, also, for the purpose of making this diagnosis. In the first place, all possible positions that a child may assume in the different presentations (head, breech or cross) are simplified in their division into two, viz., a first and a second. The term *first position*, applying to all those in which the occiput or posterior aspect of the presenting part is to the left side of the patient; the term *second position*, applying to such as have the posterior aspect of the child to the right; and in cross "*lagers*," as they are termed here, wherein there is as yet really no presenting part, the location of the back of the child determining the name to be applied to it. In cross "*lagers*," or cross situations, the "*lager*," or "*lay*" of the child is designated the first or second lager, according to the location of the head; if this is on the left side of the woman, the "*lager*" is the first; if on the right side, it is the second. In addition to this, however, a distinction is made, also, in reference to *position*—a distinction based upon the location of the child's back. If the back is towards the patient's abdomen, *i. e.* in front, the position being the first; if towards the woman's spine, the second: and thus, for the purpose of illustration, in a cross "*lager*," with the child's head on the left side of the abdomen, and the back in front, the designation would be first lager, second position. The diagnosis of these points is considered of value in these presentations, because the method of turning and the position of the patient during the operation are dependent upon the position of the child.

Having thus divided the *positions*, the sounds of the foetal heart, when audible, indicate where the back of the child is situated, and, having learned the *presentation* already, these sounds become, of course, an index to the manner in which the child is lying. Palpation of the abdomen readily indicates the spot where the foetal heart-sounds must be sought for; if they exist on the left side of the umbilicus, the presenting part is in the first position; and if on the right side, the position is the second.

In cross "*lagers*," the sound of the foetal heart is not an infallible index of the position of the back of the child, as this sound is heard sometimes when the back is towards the spine. In these cases, as well as in those in which the foetal heart cannot be heard at all, the diagnosis must be made by manipulation.

Third. In concluding the ordeal through which the applicant is obliged to pass, a vaginal examination is made, finally. By means of this examination, the evidence obtained by feeling through the walls of the abdomen, in reference to the mobility or the immobility of the presenting part, obtains corroboration, or, perhaps, sometimes, correction; and the value of this point, in enabling the physician properly to interpret the meaning of the height of the uterus, after the completion of the eighth period, has been referred to already. Besides this, the roughness or smoothness of the mouth of the womb, its consistence, and the extent to which it is open, indicate to the practised touch, immediately, whether the patient has borne children before or not.

In writing this communication, I have done so simply for the purpose of giving a general idea of how these examinations are conducted, and with the intention of indicating in a broad manner, only, upon what grounds the diagnoses in these cases are arrived at. It will be understood, of course, that, besides the gross indications which I have endeavored to make clear, there are other points, of varying importance, which, also, must be taken into consideration in different patients. In some women, the quantity of fluid in the uterus is unusually great, while in others it may be unusually small, and that these conditions should have an influence upon the height of the uterus will not appear strange. The size of the foetus, itself, sometimes becomes deserving of notice, and these facts must be taken into consideration when determining the age of the pregnancy.

Again, I have met with multiparæ in whom, after a rest of more than three years, the uterus had become so fully rejuvenated, and the marks usually found about the vaginal portion of the uterus of women who had borne, had become so fully obliterated, that it could scarcely be distinguished from that of a primipara, by the most practised touch; and other points of like importance exist, which it would prolong this letter too much to attempt to dilate upon now.

Vienna, Austria, March 12, 1872.