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PLACENTA PREVIA; OUTLINES OF ITS PRESENT MANAGEMENT AND OF A NEW TREATMENT. WITH AN ILLUSTRATIVE CASE.

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PLACENTA previa or placental presentation is the term applied to that condition where the placenta occupies in whole or in part that portion of the uterus through which the child has to pass.

Two varieties of this presentation are recognized. 1st. Complete, in which the entire circumference of the cervix is attached to the placenta. 2d. Partial, called also placenta

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lateralis, where a portion only of the cervix is attached. The complete is always attended with extreme danger, while the partial may sometimes be so slight as to be easily managed.

It appears to me that two other distinctions are yet required to indicate whether the adhesion of the cervix occurs near the centre of the placenta or near its circumference, which difference of position exercises a great influence over the treatment and the result of the case. A "circumferential complete placenta previa" may by the process of dilatation be converted into a "partial placenta previa," but a "complete placenta previa" occurring near the centre of the placenta must remain complete to the end, and is necessarily the most dangerous. It certainly would be much more convenient to reserve the words central and circumferential for the designation of the portion of the placenta involved, while the terms complete and partial would still indicate the amount of cervix attached to the placenta. This or some similar arrangement would allow a much more exact classification of these cases. "Partial placenta previa" must always be circumferential according to this distinction; but the "complete" may be either "complete central" or "complete circumferential." It is scarcely admissible to class all the other presentations of parturition according to the presenting part, while the classification of placenta previa is made solely by the insertion of the cervix, at the same time that the portion of the placenta which presents is not taken into account.

The situation of the placenta, in the class of cases under consideration, necessitates its detachment from the tissues of the uterus during dilatation of the os, and from this results a hemorrhage which is unavoidable.

Nægele has said that "there is no error in nature to be compared with this, for the very action which she uses to bring the child into the world is that by which she destroys both it and the mother," and Sir James Simpson computed the fatality of placenta previa as being over one-half the children and one-third the mothers.

Of such rare occurrence that many a practitioner will pursue his vocation for years without meeting a case, "yet so serious are its results that, although it occurs not oftener than once in five hundred cases (which is the proportion computed as correct by some authors), it exerts a marked influence upon the statistics of obstetrics." (Thomas, AMER. JOUR. OF OBSTETRICS.)

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Opinions such as these incontestably demonstrate the great importance of any suggestion tending to lessen the mortality attendant on placenta previa.

A hasty review of the principles of treatment, as set forth by the latest authorities, cannot fail to be both interesting and instructive, as showing how little progress has been made in guiding or controlling these most harassing cases.

Barnes, in his "Obstetric Operations," p. 380, thus tabulates the means at present at command for combating the complications which arise in this class of cases, quoting from Prof. T. G. Thomas:

"Means for preventing hemorrhage while the os dilates: 1*st.* Distention of the cervix by bags of water. 2*d.* Evacuation of liquor amnii. 3*d.* Partial detachment of placenta. 4*th.* Complete detachment of placenta. 5*th.* Tampon or colpeurynter.

Means for hastening delivery of child: 1*st.* Ergot. 2*d.* Version. 3*d.* Forceps. 4*th.* Craniotomy."

Cazeaux mentions that Moreau made use of a lemon, having the rind pared off at one end, as a tampon.

Playfair, in his "System of Midwifery," p. 369, gives a summary of rules for treatment, which may be epitomized as follows: 1*st.* Before the child is viable, temporize. 2*d.* After that time, let parturition go on. 3*d.* When possible, rupture the membranes. 4*th.* If hemorrhage ceases, trust to nature; but with flooding and an undilated os, tampon, and promote uterine contraction. 5*th.* As soon as possible turn (preferably by the bipolar method), or, if necessary, first use Barnes' bag; or, 6*th.* Instead of or before turning, separate the placenta.

Of extraction of the placenta, Leishman says: "It is not to be resorted to unless the circumstances be very exceptional, as when the operation of turning is impossible, and that of separation has failed," and he further says "astringents, local and general, have been tried in every possible way in these cases, but it must be confessed that their action is not even in the slightest degree to be depended upon—a result which will not excite wonder, if the purely mechanical cause of the hemorrhage be kept in mind."

This is entirely at variance with my experience in the use of hemostatics in hemorrhages preceding delivery.

For many years I have been in the habit of using gentle intrauterine instillations of hemostatics in such cases, with good

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effect. In accidental hemorrhages and in those preceding abortion, I have applied fluid extract of matico in this way a great deal, preferring it to other hemostatics, because I conceived its after-effects to be less irritating.

In several cases of slight partial placenta previa, I had applied this class of remedies with satisfactory results, and I, therefore, determined to test their efficacy in the first severe case which I met with, and the termination of the following case of complete placenta previa, treated by the direct application of styptics to the bleeding surfaces, has been sufficiently encouraging, in my opinion, to warrant a further trial.

May 25th, 1879, was called to see Mrs. M., a multipara of good physique, then in the seventh month of pregnancy with her ninth child. At the time of my visit, she was suffering from diarrhea with painful tenesmus, and was with much pain voiding a little thick, heavy urine every few minutes. Pulse 134, temperature 103, respiration 30. Skin bathed in profuse perspiration, extremities cold, appearance very anemic, and there was great nervous excitement. The abdomen was tender, and there was some metrorrhagia. A digital examination per vaginam revealed an undilated os and a thick cushiony-feeling uterus, but the fetal presentation could not be made out in this way. External manipulation showed the presence of a living child, and indicated a presenting head. Evidently the case was one of placenta previa with threatened premature delivery.

Deeming it best, even though the child may have been viable, to temporize, and to endeavor to extend gestation to its full term, if possible, I followed the course of treatment usual in such cases, and I determined, if labor should be accompanied with much hemorrhage, to apply a hemostatic to the bleeding surfaces with a brush or swab, of course giving ergot, if there should be a cessation of pains.

With varying symptoms the case progressed until June 22d, when I was hastily summoned at midnight, to find my patient almost collapsed from a hemorrhage which had lasted some time, and which a midwife had vainly endeavored to arrest. I found the pains had entirely ceased, the vagina was filled with clots, the os dilated sufficiently to admit the finger, by which the placenta could be easily detected, and the warm blood could be distinctly felt flowing through the os.

Cleaning out the clots, a speculum was introduced, and the liquor ferri persulphatis was applied to the bleeding surface by means of a cotton swab passed through the os. The hemorrhage ceased *instantly and absolutely*, and the speculum was retained in place about fifteen minutes to see that bleeding did not recur. Stimulants and ergot were then given freely, and a pledget of cotton saturated with the styptic was left in the os, and sustained in place by a very slight tampon of cotton, merely sufficient for

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that purpose. The liquor amnii had been very slowly discharging for a couple of days. Labor recommenced in about an hour.

Up to 6 A.M., no blood was lost, but at this time, during an effort to rise, the tampon dropped out, and with it about an ounce of fresh blood, but no clots. A specular examination showed the os dilated about one-half, the placenta covering the orifice was now plainly visible, and the blood was flowing from the left margin.

The iron solution was again applied, which stopped the bleeding instanter, and hence it was thought unnecessary to use the pledget. At 7:15, the hemorrhage recommenced, but was instantly controlled as before. All this time labor was going on satisfactorily.

At 8:20, the patient got out of bed to have an evacuation, when, during a severe pain, the placenta was expelled, followed shortly after by the fetus, which was dead, and apparently had been for several hours.

The placenta shows the marks of the styptic in three places; one near the centre being a patch about two and a half by one inch, the other two are smaller and near the margin.

The subsequent history of the case has in it nothing worthy of note.

The child evidently died of the hemorrhage before the application of the styptic, as there was really no bleeding subsequent to the use of the iron.

The case was in part watched by Dr. Fernand, of this city.

The better to show the differences and the probable advantages of this system of treating placenta previa over vaginal styptics and tampons, it may be useful to direct special attention to a few of the more prominent points of distinction between these methods of treatment and that pursued in the case just narrated.

1. There was an entire absence of labor pains until long after the hemorrhage had been stopped by the application of the styptic, and, consequently, the cessation of the flooding could not be due to compression by the advancing head.

2. The speculum was retained in place fully fifteen minutes after the first hemorrhage ceased, and during this time no other application was made but the styptic, once applied with the probang.

3. The tampon inserted, previous to the withdrawal of the speculum, was scarcely worthy of the name, not being larger than a walnut, being barely sufficient to sustain in place the little pledget (about the size of a filbert) saturated with the styptic which had been left in the os, and not enough to prevent any fluid from passing around it and out. In fact, it was so small as to fall out during a change of position. The progress of the case proved subsequently that this precaution was

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unnecessary, and I should not again employ it, unless the indications for its use were imperative. I can readily conceive of such a case wherein the dilatation would be rapid, and consequently the vessels would be ruptured in quick succession, but even under such circumstances I would now be more inclined to watch the progress through the speculum, and apply the styptic directly as required.

4. There was no clot on the tampon which fell out at six o'clock A.M.; consequently, there could have been no bleeding during the six hours immediately following the first application of the styptic.

5. It will be observed that, for two periods of one hour each, without the smallest tampon being present to prevent bleeding, there was not the least hemorrhage, viz., from 6 to 7, after the application of the styptic at six o'clock, and from 7.15 to 8.20, after the application at 7.15, and three applications of the stypic resulted in an absolutely bloodless delivery.

6. True, the child was dead, but this evidently occurred before the application of the styptic, because, after that time, there was practically no loss of blood.

7. During the progress of the case, the bleeding was *instantaneously* stopped, on three occasions, under the eye of the accoucheur, by the direct application of the styptic.

8. The tampon depends for its efficacy largely upon compression of the bleeding surfaces between itself and the advancing portion of the child. Even in successful cases, this resistance must tend to retard labor, and increase the danger of rupture of the uterus. From this objection the method here suggested is entirely free.

9. In the employment of vaginal styptic tampons, or vaginal styptic injections, the force of the styptic action is expended either upon the blood flowing into the vagina, or else upon the vaginal mucous membrane, destroying its lubricity and constringing the vaginal walls, with the result of vastly increasing the difficulties of delivery, as in Fritsch's case mentioned by Müller.[1] This condition is avoided by the intrauterine application of the styptic.

10. This method of applying styptics should not be confounded either with vaginal styptic injection, or with the appli-

[1] Placenta Prævia, von Dr. Ludwig Müller, p. 310, 1877. Enke: Stuttgart.

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cation of styptics by means of vaginal tampons moistened therewith, which only form coagula in the vagina and in the os, behind which the hemorrhage goes on. Indeed, in other cases I have often seen through the speculum the blood oozing out at the side of the cervical clot.

When the styptic solution is applied in the vagina, it is quite impossible for it to reach the bleeding surfaces, because of the formation of the clot in the os, as just mentioned, which prevents its entrance, while the action of the uterus and the outward flow of the blood will also tend to exclude the styptic from the uterine cavity; applied directly, however, the first action of the styptic will be to form a clot over and around the internal portion of the cervix. This clot, during the period of rest, will extend, insinuating itself, perhaps by capillary attraction, to a greater or less extent between the placenta and the uterine wall; the following pain, by compressing the clot, hardens it, and drives the styptic still farther into the bleeding vessels, and, it may be, forces it yet farther between the detached surfaces, and this action is repeated as new surface is exposed, until the supply of styptic is exhausted. That this is possible is shown by the large area of the mark on the placenta, of the first application, about five square inches, while the cervix through which the probang was introduced was not over one-half to three-fourths of an inch in diameter.

11. The absence of tampons and vaginal clots will do away with the danger of concealed hemorrhage.

Finally, it would be well to keep in view the principles upon which this treatment is founded, viz.: To apply the styptic locally, directly, and continuously to the bleeding placental and uterine surfaces, and so to arrange matters that the styptic will pass between the attached placenta and the uterine wall by capillary attraction or otherwise.

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