Remarks on a case of spurious menstruation during pregnancy / by J. Jardine Murray.

REMARKS

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CASE OF SPURIOUS MENSTRUATION DURING PREGNANCY.

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THE following case is interesting, as it shows what is probably the true nature and origin of the fluid in *some* of the recorded instances of so-called menstruation during pregnancy.

I shall narrate the facts of the case in the order in which they became known to me, as I believe that, in this way, its bearings may be most easily shown.

At 10 A.M., on the 15th March 1857, I was called to Mrs Eliza White, æt. 22, the wife of a mason. The messenger stated that the case was one of flooding with threatened miscarriage.

Threatened Abortion.

I found the patient in bed, the bleeding checked, and the pulse full and good. On examination, the os uteri was ascertained to be so fully dilated as to be hardly palpable, the membranes were tense, and a head presentation was readily made out by *ballottement*. The movements of the fœtus were felt on placing the hand over the abdomen; and, on auscultation, the pulsations of the fœtal heart and the uterine souffle were heard.

Conception during Lactation.

The patient was nursing her first child, a fine boy, born on the 11th May 1856, and therefore ten months old. She had nursed this child from his birth, and he had lived mainly on his mother's milk. In answer to my questions, she stated that she first menstruated when 18 years of age, and that her catamenia had returned every four weeks till shortly after marriage, two years ago. Each menstrual period was usually of three days' duration, and not attended with much pain or inconvenience. During her first pregnancy she did not menstruate, nor was there an unfavourable symptom. She further stated that, after the birth of her first child, she was not unwell till the Christmas week, when the discharge lasted three days.

Menstruation during the Third, and again during the Fifth Month.

On the 18th of February, *i. e.*, about eight weeks afterwards, a second discharge of bloody fluid occurred, similar to the preceding, but lasting a somewhat shorter time.

She had no suspicion of being pregnant till quickening, which took place two months before. Since that event, she had been daily reminded of the child's presence by its frequent movements.

Her present labour-pains were brought on by imprudent exertion at a con-

vivial meeting in a friend's house on the previous evening. According to her own account, she must have danced during three or four hours; and, when we consider the energetic manner in which persons in her rank of life take dancing exercise, it is not difficult to believe what she states—that towards the close of her performance she was much exhausted. That night she had soreness in the back, which soon passed into the severe intermittent pains indicative of uterine contraction. Towards morning, bleeding came on, when, as already stated, I was sent for.

Opiate and Quiet. Although, from the great dilatation of the os uteri, I thought it improbable that the threatened abortion could be prevented, I administered a full opiate, insisted on free ventilation and light covering, attended to the condition of the bladder and rectum, allowed only cold drinks, and enjoined absolute quiet.

Abortion at Sixth Month. In the evening, I found that the patient had obtained a few hours' sleep, for which she expressed great thankfulness. The pains had, however, returned, and were recurring at intervals of ten minutes. About 8 P.M., she was delivered of a fœtus

Good Recovery. and placenta, about the sixth month. No unfavourable symptom followed. She continued to nurse her first child.

It is evident that conception had occurred during the period of lactation, and without any previous return of the catamenia. Instances of this nature are not rare,[1] and only prove that the entire phenomena of menstruation are not absolutely necessary to human impregnation.[2]

The specially interesting point in the patient's case is the stated occurrence of menstruation during pregnancy. The discharges, which the woman believes to have been menstrual, must have occurred during the *third* and *fifth* months of utero-gestation.

Now, the physiological anatomy of the impregnated uterus shows that true menstrual fluid may be secreted and discharged from the lining membrane of the cavity of the uterus during the earlier months of pregnancy. For it has been demonstrated that, until at least the end of the second month, the decidua reflexa does not become intimately adherent to the decidua vera, and that the mucous plug in the cervix is displaceable.[3]

But, when the true and false decidua are afterwards entirely united, it is not easy to conceive how true menstruation could take place without great danger to the life of the embryo. Hence, many obstetricians of repute have denied its occurrence during the latter months of pregnancy.[4] It is wrong, however, to pronounce this *impossible;* for, as we know that, at any period in utero-gestation, slight

[1] Montgomery *On the Signs of Pregnancy*, p. 83.

[2] Power *On the Female Economy*, p. 11.

[3] See a paper by Dr J. Matthews Duncan, *Edinburgh Monthly Medical Journal*, April 1853.

[4] Denman, *Introduction to Midwifery*, seventh edition, p. 149.
Van Swieton's *Commentaries upon Boerhaave*, v. xiii., pp. 381, 382.
Hamilton's *Practical Observations*, 1836, part i., p. 139.
Velpeau, *Traité de l'art des Accouchemens*, 1835, tome I, pp. 127, 128.
Rœderer, *Elémens de l'art des Accouchemens*, 1765, chap. vii., § 146, A.
Desormeaux, *Dict. de Méd.*, tome xiv., l'article "Menstruation," pp. 184, 185.
Hoffman, *Medic. Ration. et System.*, tom. iv., parte ix., cap. 623.

hæmorrhages, from accidental disturbances of the ovum, readily find their way through the os uteri, in spite of the plug which fills up the cervix; so, doubtless, the menstrual discharge, if secreted, would obtain an exit with equal facility. Supposing this secretion possible at such a time, it would differ from hæmorrhage produced by disturbance of the membranes or placenta, in being derived from the decidua vera, and in forcing its way to the cervix by separating the decidua vera from the decidua reflexa; whereas, in accidental hæmorrhage, there is a separation of the decidua vera from the walls of the uterus, and the blood escapes through the channel thus formed. It is worthy of remark, that Deneux has found effused blood in the decidual cavity.[1]

At all events, we have abundant evidence of the fact that, both during the early and the later months of pregnancy, there sometimes occur discharges from the vagina so closely resembling menstrual fluid in appearance and quantity and also in periods and duration, as to be undistinguishable from it.[2]

Being anxious to ascertain the origin of these discharges in the case already described, I carefully examined the membranes and placenta. Two strips of lymph were detected, overlying partially atrophied placental structure. It was evident that organisation of lymph had followed each of two distinct separations of an edge of placenta from the walls of the uterus.

Placental Lesions.

The lesions are exhibited in the accompanying woodcut, from an accurate drawing by my friend Dr Oswald H. Bell.

[1] Cazeau, *Traité de l'art des Accouchemens*, quatrième édition, 1853, p. 360. Deneux, *Journal Générale de Médicine*, tome lxviii.

[2] Velpeau, *op. cit.*, tome I°, p. 182:—"J'ai maintenant huit examples bien constatés de cette persistance des règles pendant la gestation." "La Menstruation est alors *déviée* de ses routes habituelles, comme quand elle se fait par l'urèthre, le rectum, les voies pulmonaires, les seins, ou un point quelconque des surfaces tégumèntaires."—Tom. I°, p. 128.

Henke, *Zeitschrift der S. A.*, 1844, p. 265.

Mauriceau *sur les Maladies des Femmes Grosses*, tome I°, pp. 71, 72.

Locock, in *Cycl. of Pract. Med.*, vol. iii., p. 113.

Murphy's *Obstetric Report*, 1844, p. 9.

Gardien, *Traité Complet d'Accouchmens*, 1816, tome I°, p. 489.

Whitehead *On Abortion and Sterility*, 1847, p. 218.

Boismont *de la Menstruation*, *British and Foreign Medical Review*, 1842, vol. xiv., p. 386.

Dewees, *Compendium of Midwifery*, 1825, p. 96.

Gooch, *Diseases Peculiar to Women*, 1829, p. 202.

Blundell's *Principles and Practice of Obstetricy*, 1834, p. 165.

Mayo's *Human Physiology*, fourth edition, p. 392.

Foderé, *Méd. Lég.*, 1813, tome I°, chap. vi., § 277, p. 437.

Francis, Editor of Denman, p. 231.

Churchill's *Midwifery*, third edition, p. 128.

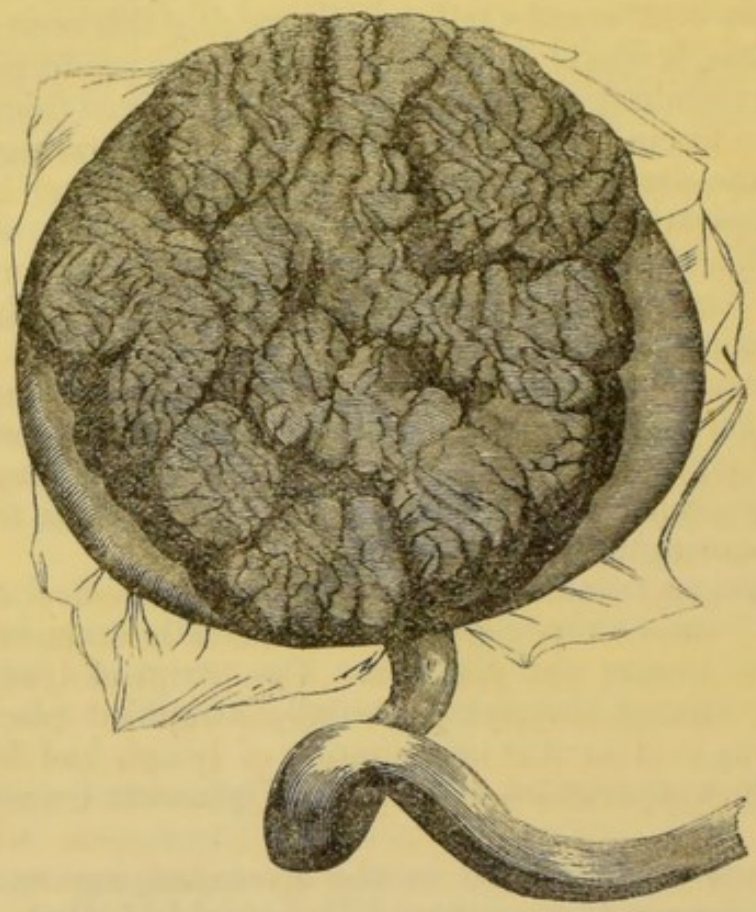
Kennedy, *Evidences of Pregnancy*, 1833, p. 14.

Burns, *Principles of Midwifery*, eighth edition, p. 215.

Campbell's *Midwifery*, 1833, p. 44.

Heberden's *Commentaries*, p. 208.

On the right hand margin is represented the larger lamina of organised lymph which covers the more thinned edge of placental



structure. It is conjectured that the separation of this edge of placenta occasioned the first onset of hæmorrhage, which was also more copious and longer continued than that which subsequently occurred. Since this edge is the more wasted of the two portions which had become inactive from rupture of their uterine attachments, we may conclude that it was the portion first separated from the walls of the uterus; for, after such separation, the placental structure could no longer perform its functions, and would become atrophied, like any other part no longer functionally active.

Giving rise to the so-called Menstrual Discharges.

On the left is the less extensive surface of lymph, which appears to be of more recent origin, from the fact that the structure underneath is less wasted. The separation of this edge of placenta probably caused the second and less severe attack of hæmorrhage.

I was thus led to make further inquiries concerning the discharges in question, and obtained the following additional information :—

This View Confirmed by Further Inquiry.

The first discharge appeared towards evening, while the patient was seated in an omnibus, on her way to visit some friends at a distance. During the day, she had been putting her house in order, and had strained herself in carrying a heavy cradle, containing her baby, across the room. The discharge was rather more sudden in its appearance, and more copious than her menstrua were wont to be; but, not suspecting pregnancy, she considered it simply a return of her

courses. There were no coagula. She thinks the stains were somewhat darker than usual, probably from the linen being soaked with a larger amount of blood.

The second discharge very closely resembled an ordinary menstruation in quantity and duration. It commenced on the afternoon of a washing day, and was not particularly sudden in its accession. She observed no coagula.

It is therefore evident, that a correct view of this case leads to its being placed under the head of "Accidental Hæmorrhage," and not of "Menstruation during Pregnancy."

Had it not been my good fortune to obtain the fœtus and placenta for subsequent examination, or had the placental lesions been overlooked, the case would have stood in my note-book as an instance of the occurrence of the catamenia during the third and fifth months of utero-gestation. And it is extremely probable that, if many of the reputed cases of this nature had been more carefully sifted, the discharges would have been found to differ from those to which the female is naturally subject.

In the concise digest of his keen and extensive observations, Hippocrates says:—"If a woman with child have her courses, it is impossible that the child can be healthy."[1] Again, in the treatise on the diseases of females, which forms part of the Hippocratic collection, and is evidently written by an obstetrician of great experience,[2] there is the following passage:—"If a woman, already two, three, or more months gone with child, continue to menstruate every month, the fœtus must, as a necessary consequence, be rendered puny and weak. Sometimes the woman is feverish during the menstrual flux. Both during its continuance and after its cessation she is pale."[3] And further, "The occurrence of the catamenia in pregnant women is hurtful to the child; and, if frequent, causes abortion."[4]

Since the days of Galen,[5] the received explanation of these dis-

[1] "Si mulieri utero gerenti purgationes prodeunt, impossibile est fœtum sanum esse."—*Aphor.* Sec. v., 60. On this aphorism Galen remarks, that the words *purgationes prodeunt* evidently refer to several menstruations, as it was well known that the occurrence of the catamenia once or twice was in no way injurious to the fœtus:—"Qui namque semel, aut bis, pancus excernitur, in multis citra ullam fœtus læsionem conspicitur."

[2] See Dr Adams' *Preliminary Discourse*, p. 110.

[3] "Nunc porro dicam de morbis earum, quæ in ventre habent. Pronuncio autem de muliere in ventre habente duos, aut tres menses, et ultra, si menses statim prodeant singulis mensibus, necesse est tenuem ipsam fieri, ac debilem. Quandoque etiam, febris ipsam corripit his diebus, quamdiu menses prodierint. Et dum prodeunt, et postquam prodierint, pallida sit."—Hippocratis Opera (ex Typ. Rad. Venetiis, 1739) *de Morbis Muliebribus*, lib. i., Sect. ii. 25.

[4] "Si enim in ventre habuerint, et apparuerint menses, aut abortus fiunt, si plures fuerint, et male olentes, aut fœtus morbosi fiunt."—*Op cit.*, lib. i., sect. II. p. 84.

[5] In his Commentary on the 60th Aphorism, sect. v., Galen observes:—"At excretio, quæ gravidis accidit, ex cervicis uteri venis fieri videtur; nam interne in ipso uteri suspenditur chorion, quare nihil per illa in muliebrem sinum excerni potest."

charges in advanced pregnancy has been, that the blood is derived from the cervix or vagina, but chiefly from the inferior part of the internal surface of the cervix. It is now demonstrated, by the use of the speculum, that in some cases the alleged menstrual fluid comes from an inflamed or abraded portion of the cervix uteri.[1] Discharges so derived might possibly blight the fœtus and blanch the mother; and, if frequently repeated, might even cause abortion.[2]

It is, however, at least equally probable that the discharges to which Hippocrates alludes had the same pathological cause as those which occurred in the case detailed above. If this explanation be accepted, the strict accuracy of the statements contained in these passages, from the Hippocratic Writings, will be readily admitted. For, at every period, part of the ovum would be detached from the uterine walls, and injury to the fœtus from diminution of its maternal connections would ensue; and, as it is not likely that these connections could be re-established by any subsequent process, it is evident that, if a fresh partial separation took place every month, the fœtus would perish by asphyxia, and abortion would be the result.

The periodicity with which spurious menstruation sometimes occurs might appear inconsistent with this explanation, but it is not really so: for it seems to be established that, during pregnancy, at what would otherwise be the menstrual periods, there occurs a congestive state of the uterus and appendages, predisposing to partial separations of the membranes or placenta; and it is well known that women are most liable to abort at these times.[3]

[1] Bennet *On Uterine Pathology*, p .27. Also in *Lancet*, Jan. 30, 1858, p. 111. Tyler Smith *On the Theory and Practice of Obstetrics*, *Lancet* for March 8, 1856, p. 251.

[2] Bennet *On Ulceration and Induration of the Neck of the Uterus*, second edition, pp. 212 to 221.
Whitehead *On Abortion*, p. 223.

[3] Tyler Smith, *Op cit.*, *Lancet* for March, 1856, pp. 251, 276.

OBSTETRICAL SOCIETY OF EDINBURGH.

[FROM THE PROCEEDINGS OF SESSION XVI.]

PREMATURE EXPULSION OF TRIPLETS.

On the 28th February, at 6 A.M., Mr Murray, house-surgeon to the Maternity Hospital, was summoned to visit Mrs Butler, æt. 22. The patient had not previously had an abortion; but two labours, both at the full time, and both unattended by hemorrhage or other complication. She was now seized with labour-pains at the close of the sixth month of utero-gestation. On examination, Mr Murray found the os dilated, and distinguished a vertex presentation through the tense membranes. Shortly afterwards a six months' fœtus and placenta were expelled.

The pains became slight and no bleeding followed, but the uterus remained nearly as large as before; and, on auscultation, the pulsations of a fœtal heart and the uterine souffle were audible. On vaginal examination, there was evidence of the presence of another fœtus in utero. At 9 A.M., a large opiate was administered and strict quiet was enjoined, as it was supposed that the second child might be retained in utero, so as ultimately to become viable. At 11 A.M., the patient remained quiet, the pulse was full and good, and labour pains had not recurred.

About 3 P.M., a message, that the woman was again in labour, was brought to the Maternity Hospital. As the house-surgeons were then engaged with another case, the patient was visited by Dr Moorhead, who found the membranes protruding, and could make out a footling presentation. Pains continued, and, at 5.30 P.M., the expulsion of a second fœtus was attended by a gush of blood. Very slight traction caused the rupture of the funis. Ergot was twice given, with occasional draughts of cold water, and strong pains were induced, which caused a large amount of coagula to be expelled. In a short time, the membranes belonging to another fœtus were discovered lying over the os, the feet of the child presenting. As the mother was losing blood, the membranes were ruptured, and the third child was born about 7 P.M. Ergot was again administered, with no other effect than the expulsion of large coagula. The hemorrhage persisted, and was soon attended by sinking and collapse. The funis of the third placenta was as slender as that of the second, and gave way, on very slight traction being made by Mr Murray, who had now arrived. Dr Keiller, the physician in attendance at the Maternity Hospital, had already been sent for. As hiccup supervened, and the patient was evidently in great danger from the amount of blood lost, Mr Murray introduced his hand into the cavity of the uterus, and began to separate the two placentae from the uterine walls, to which they were closely adherent. Dr Keiller arrived at 8 P.M., and completed the extraction of the placentae. Syncope occurred twice; but the patient rallied under stimulant treatment.

The *first fœtus*, which was much the smallest, gasped three times, and exhibited other reflex movements for a few minutes after being expelled. The *second*, which was of intermediate size, gasped several times, and its heart continued to beat for half an hour. The *third*, which was considerably more developed than the others, *cried* on expulsion, breathed pretty freely for some

minutes, and the heart's action continued for more than three quarters of an hour.

The *second* and *third* placenta were united by the membranes; and, as already stated, both were intimately adherent to the interior of the uterus. Their uterine surfaces were of greater extent than usual, and presented a ragged aspect.

The mother, who made an excellent recovery, can assign no reason for the advent of premature labour, which may possibly have been due to the great distention of the uterus.

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