

ARTICLE II.—*Remarks on a Case of Spurious Menstruation during Pregnancy.* By J. JARDINE MURRAY, M.R.C.S. Eng., F.R.S.S.A., late House-Surgeon in the Royal Maternity Hospital.

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, a respectable, healthy, and intelligent female, *æt.* 22, the wife of a mason. The messenger stated, that the case was one of flooding with threatened miscarriage.

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
Threatened fully dilated as to be hardly palpable, the membranes were
Abortion. tense, and a head presentation was readily made out by *bal-*
lottement. 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.

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
Conception from his birth, and he had lived mainly on his mother's milk.

during Lactation. 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

Menstruation stated that, after the birth of her first child, she was not
during the Third, unwell till the Christmas week, when her illness lasted three
and again days.
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 ago. Since then, she has been daily reminded of the child's presence by its frequent movements.

Her present labour-pains were brought on by imprudent exertion at a convivial 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, considering 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 somewhat exhausted. That night she had pain 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.

Although, from the great dilatation of the os uteri, I thought
Opiate and Quiet. 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.

In the evening, I found that these directions had been attended to, and that

the patient had obtained a few hours' sleep, for which she expressed great thankfulness. The pains had, however, returned, and were recurring at regular intervals of ten minutes. About 8 P.M., she was delivered, during one pain, of a fœtus and placenta, about the sixth month. No unfavourable symptom followed. She made a rapid recovery, and continued to nurse her first child, which, as already stated, was ten months old.

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

But 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 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,

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 Swieten's *Commentaries upon Boerhaave*, v. xiii., pp. 331, 382.

Hamilton's *Practical Observations*, 1836, part i., p. 139.

Velpeau, *Traité de l'art des Accouchemens*, 1835, tome 1^o, 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.

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, quantity, periods, and duration, as to be undistinguishable from it.²

Being anxious to ascertain the origin of these discharges in the above case, 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.

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

On the right hand margin is represented the larger of organised lymph which covers the lamina 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

Placental
Lesions.

Giving rise to
the so-called
Menstrual
Discharges.

¹ Cazeau, *Traité de l'art des Accouchemens*, quatrième édition, 1853, p. 360.
Deneux, *Journal Générale de Médecine*, tome lxxviii.

² Velpeau, *op. cit.*, tome I°, p. 182:—"J'ai maintenant huit exemples 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 tégumentaires."—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'Accouchemens*, 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.

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

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

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

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

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

Francis, Editor of Denman, p. 231.

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

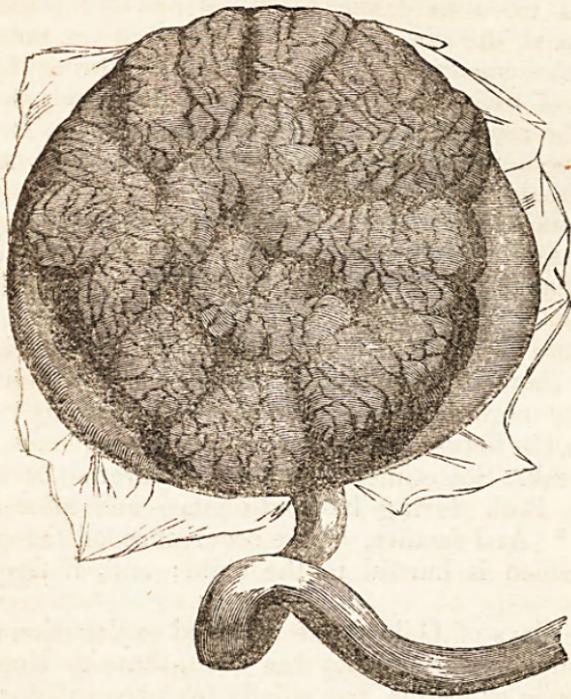
Kennedy, *Evidences of Pregnancy*, 1833, p. 14.

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

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

Heberden's *Commentaries*, p. 208.

structure could no longer perform its functions, and would become atrophied, like any other part no longer functionally active.



On the left is the less extensive surface of lymph, which appears to have been more recently effused, from the fact that the structure underneath is less wasted. The separation of this edge of placenta probably gave origin to 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:—

The first discharge appeared towards evening, while the patient was seated in an omnibus, on her way to visit some friends at a distance.

This View During the day, she had been putting her house in order, and had
Confirmed by strained herself in carrying a heavy cradle, containing her baby,
Further Inquiry. across the room. The discharge was rather more sudden in its appearance, and more copious, than her menstrua were wont to be; but, having no suspicion of 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."

I confess that, had it not been my good fortune to obtain the fœtus and placenta for after 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 discharges 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.⁶ Discharges

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, paucus 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 morborum 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."

⁶ Bennet *On Uterine Pathology*, p. 27. Also in *Lancet*, Jan. 30, 1858, p. 111.

so derived might possibly blight the foetus and blanch the mother; and, if frequently repeated, might even cause abortion.¹

But it is at least equally probable that the discharges to which Hippocrates alludes had the same pathological cause as those which occurred in the above case. Accepting this explanation, 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 foetus 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 foetus 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.²

ARTICLE III.—*Starch as a Constituent of the Animal Organism.*
By T. A. CARTER, M.D.

It may be remembered that in the August number of this Journal for 1855 I called attention to the "extensive diffusion and frequency of starch corpuscles in the tissues of the human body," by means of a number of observations made upon the solids and fluids of thirteen different individuals who had died of various disorders. I also examined the tissues of some of the lower animals which were perfectly healthy, and found that these also contained what I considered to be grains of starch, in greater or less abundance. From a consideration of these facts, I was led to conclude that starch is a physiological product of the animal organism, and then proceeded to assign to it the possible function which it performs in the economy.

Since that time, nothing has, in this country, so far as I am aware, been written corroborative either of the facts or theories contained in that communication; and as some authorities have expressed strong doubts, if they have not actually denied, that the corpuscles found in animals, and described as starch, are identical with that substance, I consider it a duty to incite, as far as lies within my power, those interested in the advancement of science, and the establishment of truth, to institute a practical examination of the subject.

¹ Bennet, *On Ulceration and Induration of the Neck of the Uterus*, second edition, pp. 212 to 221.

Tyler Smith *On the Theory and Practice of Obstetrics*, *Lancet* for March 8, 1856, p. 251. Whitehead *On Abortion*, p. 223.

² Tyler Smith, *Op cit.*, *Lancet* for March, 1856, pp. 251, 276.