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ON THE NAUSEA AND VOMITING OF PREGNANCY.

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THE sympathy between the impregnated uterus and the stomach is well known. Among the earliest and most familiar signs of pregnancy are nausea and vomiting, which, from their chiefly occurring early in the day, are known among women as the "morning sickness." The matters ejected consist chiefly of a glairy mucus, or a sour, watery fluid. If food have been taken, this also is vomited. The symptom may occur immediately after conception, and it may continue throughout the whole period of utero-gestation; but it commonly appears about the fourth week, and ceases about the sixteenth or twentieth week. Ramsbotham considers nausea an indication of a normal condition in pregnancy, and thinks its absence betokens some dangerous or unfavorable condition; but other high authorities (Montgomery, Tanner) are of a different opinion. Dr. Gunning S. Bedford (*Clinical Lectures on the Diseases of Women and Children*, New York, 1856, p. 556) also believes that women who are not usually sick during pregnancy are very liable to miscarriage, and he is in the habit of prescribing ipecacuanha to such patients, with, he alleges, favorable results. I am acquainted with a few women who never experience nausea or vomiting in their pregnancies, but who are yet in perfect health, and have borne healthy children; and my observation would lead me to believe that women who experience nausea and vomiting are quite as likely to abort as those who are free from that symptom.

Nausea and vomiting may not only persist beyond the normal period, but by their obstinacy and violence are sometimes productive of the most serious consequences, threatening and even causing death, from exhaustion and inanition, of which an interesting example occurred in the person of the gifted Charlotte Brontë. How far this excessive sympathy is due to an abnormal condition of the uterus becomes an interesting subject for inquiry. Dr. James Henry

Bennet, whose writings have done so much of late to waken an interest in the subject of uterine disease, believes that obstinate vomiting during pregnancy is mainly caused by disease of the cervix uteri. In the third edition of his *Practical Treatise on Inflammation of the Uterus, &c.*, London, 1853, he thus expresses himself on this subject:—"When the cervix has been brought fully into view, it will be found tumid, congested, of a livid hue, voluminous, soft and only partially indurated; and on one or both lips, generally penetrating into the cavity of the os, is seen a more or less extensive ulceration, sometimes covered with large, fungous granulations." "Its fungosity [i. e., of the ulceration] is sometimes so great that it might occasion, in the minds of persons unacquainted with the above facts, the impression that the patient is affected with malignant ulceration of the organ. I have generally found ulceration of the cervix in pregnant women begin to assume this fungous character about the end of the third or fourth month of pregnancy."—(P. 160.) "One of the commonest and most distressing symptoms is an extensive aggravation of the sickness which is naturally present during the first months of pregnancy. The existence of inflammatory ulceration of the cervix, will, indeed, I firmly believe, be found to be the key to those cases of obstinate sickness which occasionally defy all medicinal aid, reduce the patient to the brink of the grave, and sometimes even render it necessary to bring on abortion in order to save the life of the mother. At least I have found such to be the case in nearly every instance of the kind in which I have been consulted, for many years since my attention has been directed to the subject."—(P. 163.)

Now it is remarkable that Dr. Bennet does not report a single case in support of this opinion, although he cites several of abortion caused by disease of the cervix. It would at least be interesting to know *how many* instances of the kind he has met with. If "luxuriant fungosity of the ulcerated surface" be exceedingly common during pregnancy, and if "one of its commonest and most distressing symptoms is an extreme aggravation of the sickness" of pregnancy, this effect ought also to be common, whereas we know it to be rare. Hence the disease of the cervix does not necessarily induce these symptoms, and there are good reasons for believing that some of the worst cases of vomiting during pregnancy may occur with a perfectly normal state of the cervix.

Dr. Clay, of Manchester, Eng., an eminent authority, has published a treatise on this subject, which I have not seen, but which is quoted by Dr. Tanner (*Signs and Diseases of Pregnancy*, London, 1860, page 386). He thinks that excessive nausea and vomiting during pregnancy is often due to "congestive inflammation and great tenderness of the os and cervix uteri." A case reported to the Boston Society for Medical Improvement, by Dr. S. D. Townsend, perhaps tends to support this view. A lady, 35 years old, had a

succession of abscesses which opened into the vagina, and were finally attended by vomiting, which was obstinate and excessive. "At last it was accidentally discovered that this symptom could be instantly controlled by raising the cervix uteri with the finger, the vomiting returning as soon as the organ was allowed to return to its natural position. The insertion of a piece of sponge into the vagina had the same effect."—(*Transactions of the Boston Society for Medical Improvement*, Vol. IV., p. 256.) No doubt the cervix was in an irritable and tender condition, which was aggravated by pressure against the sacrum to such an extent that the stomach manifested its sympathy by vomiting.

Dr. Miller, of Dorchester, has published an interesting paper on this subject in the *Boston Medical and Surgical Journal* (Vol. LXI., p. 69). He thinks the excess of this symptom is often, perhaps generally, caused by a congested or inflamed condition of the cervix, and he reports five cases in which the application of a strong ethereal tincture of iodine to the cervix and upper part of the vagina was followed by relief. In most of these cases the relief followed so quickly the application of the remedy that there seems to be no doubt that the former was the effect of the latter.

We thus see that excessive nausea and vomiting are sometimes apparently occasioned by a condition of the os or cervix uteri which may be relieved by the application of some strong stimulant or irritant, like tincture of iodine or nitrate of silver; but what is interesting in this connection is, (1) that there is no one condition of the cervix or os which is chiefly capable of producing the symptom in question. Dr. Bennet ascribes the vomiting to *ulceration*, Dr. Clay to *congestive inflammation*, and Dr. Miller to *congestion* of the cervix, and in one instance to *inflammation, hypertrophy and congestion*; and he afterwards remarks, "in all there was well-defined inflammation of the cervix, though not all equally marked." Like many others, he falls into the error of confounding congestion with inflammation. (2.) Another interesting fact is, that neither congestion, inflammation nor ulceration of the cervix or os uteri are liable to cause nausea and vomiting in the non-pregnant state, and this throws some doubt as to the true pathology of the affection. Because certain applications to the cervix are sometimes followed by relief, it does not follow that the cervix was inflamed, or that, if inflamed, it was the cure of this latter condition which caused the cessation of vomiting. A dark-red color is the normal one for the pregnant uterus, and if that be the cause of excessive nausea and vomiting, this symptom would be constant instead of rare. The cervix of the unimpregnated uterus may be entirely destroyed by cancerous ulceration without causing vomiting. If inflammation, ulceration, or even congestion be the source of the mischief, how does it happen that the vomiting will sometimes instantly cease, with-

out any remedy having been addressed to the uterus?—as in the following case:—

CASE I.—Mrs. W., aged about 25 years, was the mother of two children, the youngest about two years old. She had never suffered from unusual nausea and vomiting in former pregnancies. She was debilitated from over-lactation with the youngest child, suffering from neuralgia and giddiness. She became pregnant a third time early in July, 1855, and immediately began to complain of nausea and vomiting, which increased until I was consulted, Oct. 22d. At that time she vomited apparently everything taken, on some days, while on others she suffered less from this symptom. She was ordered to keep the horizontal position, to apply chloroform to the epigastrium, to take effervescing draughts, to have her breakfast in bed, removing to the sofa an hour afterwards, &c. Under this treatment there was no vomiting for thirty-six hours, but the symptom returned with violence on the 26th. The patient tried almost all the remedies which are usually employed in these cases, with varying success; sometimes she would be free from vomiting for twenty-four hours, but there was no real improvement, and she became much emaciated and greatly debilitated. No treatment was addressed to the uterus directly, but on the 7th of November four leeches were applied to the epigastrium, against the remonstrances of the friends, who thought that the patient was already debilitated enough. Entire relief followed this experiment, and there was never any vomiting of consequence afterwards. Mrs. W. slowly recovered her strength, and was confined without accident, April 17th, 1856. The child, a boy, weighed 9 pounds. In this case no examination of the uterus was made, but if it were inflamed or congested or ulcerated, either those conditions could not have interfered with the sudden cessation of the vomiting on the 7th of November, or else they must have ceased to exist in an equally sudden manner. The following case is of a similar character.

CASE II.—Mrs. S., about 26 years old, the mother of one child, became pregnant early in April, 1863. She was then not in very good health, and suffered from cough, pain in the left side, and severe facial neuralgia. In June, she began to have nausea, which increased until July 10, when the vomiting became uncontrollable, and continued so for about six days, when it was arrested, apparently by the application of morphia to a blistered surface on the epigastrium. From this time Mrs. S. did well, gained flesh, and was confined without accident, Feb. 6th, 1864. In this case, also, the suddenness of the recovery precludes the idea of organic disease of the cervix being the cause of the nausea and vomiting.

Displacement of the uterus seems sometimes to be the cause of excessive nausea and vomiting during pregnancy, although, so far as I know, these symptoms do not commonly attend that state of the

unimpregnated womb. An abstract of a case of this kind, reported by Dr. Brian to the French Academy of Medicine, may be found in Vol. LV. of the *Boston Medical and Surgical Journal*, p. 292. The case seemed approaching a fatal termination, all remedies which could be thought of having been tried in vain, when a vaginal examination was made, which showed that the uterus was completely retroverted, and incarcerated in the hollow of the sacrum. It was disengaged from this situation and placed in its normal position. Immediate relief followed, and the vomiting ceased, to return no more. The case before alluded to, reported by Dr. Townsend, may, perhaps, be referred to this head.

CASE III.—Mrs. C., about 20 years old, tall, slender, who had always been delicate, began to have nausea about the end of December, 1863, being then six or eight weeks advanced in her first pregnancy. The symptom increased, and was soon accompanied by vomiting, for which all the usual remedies were tried:—mustard and chloroform externally; chloroform, lime-water, creosote, prussic acid, oxalate of cerium, ice, soda and checkerberry, bismuth, internally, gave no relief. Morphia applied to a blistered surface afforded some benefit, and this was employed twice daily, the amount used being increased from half a grain to a grain and a half, the patient keeping her bed all the time, a period of about four weeks, during which she vomited several times daily, and apparently retained very little food. Feb. 8th, four leeches were applied to the epigastrium, but without relief.

Feb. 9th, an examination was made, and the cervix was found to be prolapsed almost to the external orifice. By the speculum, it was seen to be dark-colored, but otherwise normal in appearance. It was long, and soft to the feel. A strong ethereal tincture of iodine was painted freely over the cervix. No relief followed this application, and the next day a ring pessary was applied to raise the uterus. This was followed by considerable improvement, although the patient still vomited at intervals. Feb. 14th, on examination, the cervix is found very low, and directed towards the pubes, soft, not tender, and easily raised by the finger to its normal position. The speculum showed the os to be small, closed, the exterior of the cervix healthy in appearance, and not very dark in color. It was freely painted with the iodine, which caused some smarting. The ring was removed, and a sponge was substituted, so as to keep the uterus in a normal position. The sponge was removed and cleansed daily. Much relief followed this treatment, and on the 16th the patient removed to a new house, walking up two long flights of stairs with ease. On examination by a good light, the cervix looked perfectly healthy, except a slight abrasion on one side of the os, a few lines in extent. The color was a shade darker than in the virgin state, but it was still pink, and not red. The iodine was again freely applied, and an inflated india-rubber pessary was sub-

stituted for the sponge. From this time Mrs. C. was relieved of excessive vomiting, although she was still occasionally troubled by it in the morning. She walked out, and was able to retain her food. She remained somewhat debilitated, and early in March was much annoyed by a succession of boils on the abdomen. The pessary was worn until March 21st, when the uterus had risen so high in the pelvis as to require no support. Mrs. C. was well after this time, and was confined Aug. 4th, forceps being used, on account of inefficient pains. She recovered perfectly, but was unable to nurse her child, having no nipples. The child was a boy, of large size, and is thriving on a wet nurse.

While this patient was under treatment I felt quite sure that the excessive vomiting was owing to the prolapsed condition of the uterus, and that the relief was due to the employment of the pessary. The patient thought so too; and I have no doubt that this opinion was to some extent true. It will be noticed, however, that the improvement was not instantaneous, but gradual, and that the vomiting did not cease before March 8th, or seventeen weeks after the beginning of pregnancy; and the subsequent history of Mrs. C. will show that there was something more than mere uterine displacement which caused her so much discomfort.

Jan. 2d, 1865, Mrs. C. sent for me, saying that she had been troubled with nausea for several days, and as she had had no catamenia since the last of November, she feared that she was again pregnant. She had vomited bile in the morning. On examination, the uterus being found very low, as before, a ring pessary was introduced.

Jan. 4th.—Vomiting increased. Patient anxious and desponding. The ring was removed, and a "concave" pessary, of vulcanized india-rubber, was substituted.

10th.—No relief followed the introduction of the pessary. As it was turned somewhat edgewise, a larger one was yesterday introduced in place of it. The patient is tolerably comfortable in the evening, but during the day she is constantly nauseated, and vomits apparently everything taken, besides much bile.

11th.—As Mrs. C. was no better, the concave disk was removed, and a large ring substituted. The uterus was very low, the os rather patulous and rough within. Solid nitrate of silver was applied.

13th.—No improvement. Patient vomits continually. Os uteri patulous. By the speculum it is seen to be open and granular on the inside. Nitrate of silver was applied to the inside of the cervix, and strong ethereal tincture of iodine (one drachm to the ounce) was painted over the outside freely, and a soft inflated india-rubber pessary was introduced.

14th.—No relief.

15th.—Decidedly better.

16th.—Worse again. She vomited fourteen times to-day, apparently retaining nothing on the stomach.

Mrs. C.'s friends were very anxious that she should make a visit to New York, and as I had some doubt as to the propriety of the step, in view of her debilitated condition, Dr. Putnam was asked to meet me, Jan. 17th, in consultation on the case. He recommended one drachm of the tincture of calumbo, with an equal amount of water, once in three hours, the use of an abdominal supporter, and that the patient should go to New York. The calumbo was given at once, and the patient seemed improved by it. The next day she was also better, and she continued to mend from that time. On the 18th, Mrs. C. drove out, and on the 21st she went to New York, where she arrived without great fatigue. Since that time she has been free from trouble.* The abdominal supporter was used at intervals, and, at the suggestion of Dr. Putnam, Hodge's "closed-lever" pessary was introduced, to raise the fundus of the uterus, which tended to fall backwards, producing a partial retroflexion.

In this instance the sickness lasted only about twenty days, and if its cessation were owing to any of the measures employed, it did not seem to be due to local treatment.

Before concluding this paper, already, I fear, too long, I will cite one other case, in which excessive nausea and vomiting were aggravated by salivation.

CASE IV.—Mrs. M., aged 26 years, wife of a coachman, has been married about four years. She had one miscarriage at the fourth month, and one year ago was delivered of a dead child at term, after a labor lasting three days. Has never suffered before from excessive nausea and vomiting. Now, Jan. 10th, 1865, is about eight weeks pregnant. For about ten days has had constant nausea and vomiting, with extreme salivation. Throws up almost everything taken, and is confined to the bed by the prostration. Uterus very low, movable, and healthy to the touch.

I will not quote the daily record of the case, but simply say that the vomiting and salivation persisted for about fourteen days, when the former ceased, and the patient was able to be about house and even to go out; she was gaining strength and health. The salivation continued, though more moderate, when last seen, Jan. 24th. As I have not heard from her since, I presume she is doing well. The remedies chiefly employed in this case were external irritation and the internal use of extract of belladonna. No local treatment was employed; and I cannot help thinking that if it *had* been, the result would have been considered as a remarkably successful one. So difficult is it to estimate the value of remedies!

As to the treatment of these cases, it would be proper, whenever the symptom does not yield to appropriate regimen and internal remedies, to ascertain the condition of the uterus. If anything ab-

* This patient was confined, without accident, Aug. 8th. The child, a girl, weighed nine pounds. During the pregnancy, Mrs. C. succeeded in drawing out the nipples, and is now nursing her baby.

normal be discovered, either in its condition or in its situation, an appropriate local treatment should at once be instituted. In a certain number of cases this will be speedily and permanently successful; but in other, and, as I am persuaded, not a few instances, it will fail. It is to be hoped that by means of carefully recorded observations we shall know ere long how far the symptom in question be dependent on a local cause, capable of removal. What is remarkable is, that in some cases in which there seems to be no lesion of the uterus, the application of a strong irritant to the cervix and the neighboring parts of the vagina is followed by relief, apparently on the principle of revulsion, or counter-irritation, just as the same effect is produced by the application of a sinapism to the epigastrium.

On comparing the cases reported above with each other, we notice one thing which is common to them all—the patients were not in good health at the time they became pregnant. They were either originally delicate, or they had become enfeebled by excessive lactation, abortions, or other debilitating influences. How far this state of things would prove to be true in a larger number of instances I cannot say, but the subject is worth investigating. Should further observations show this to be a common condition in the excessive vomiting of pregnancy, we may, in some cases, anticipate the evil, and prevent it by recommending a good diet and tonic medicine, and by enjoining the patient to avoid, as far as possible, everything likely to lower the general health.