THE TREATMENT OF OBSTINATE VOMITING OF PREGNANCY.¹

BY AUGUSTUS P. CLARKE, M.D.,

OF CAMBRIDGE, MASS.

Of the sympathetic signs of pregnancy, no one is more common than morning sickness; and when the vomiting becomes obstinate or uncontrollable, no condition connected with the pregnant state is more depressing and exhausting to the vital powers. Mention of this condition is found in the writings of the ancients. Thus, Hippocrates prescribes rules respecting the remedial use of agents for this state; he says: "if matters be turgid [in a state of orgasm] in the pregnant woman, she should be purged"; but adds that purging is unsafe in the earlier and later stages of pregnancy. By purging, Hippocrates does not mean simply the administration of purgatives, for he speaks of purging upward in the summer and downward in the winter. This was done according to the ancient ideas to relieve the contents of the vessels that were ready to burst forth with plethora.

Wilson Fox (Reynolds' System of Medicine, Vol. III, p. 48) mentions fifty-eight cases collected by Cartaya; thirty were fatal and twenty-eight were cured after abortion or the death of the fœtus—fourteen of the latter having had premature delivery induced with success. One case recovered after leeches were applied to the cervix, and two recovered through the use of champagne. The same author states that Bretonneau reports that much benefit was derived from friction of belladonna over the hypogastric region, and that the application of the extract to the cervix was resorted to with success. In examining further the literature of the subject, the writer finds that practitioners have reached singular and different conclusions in their use of remedial agents for such sickness.

Mr. Edward Garraway (*British Medical Journal*, March 18, 1869, and *Retrospect*, Part 59, p. 198) states that carbolic acid was the only remedy that he had found of any avail for sickness of pregnancy. He gave drop doses of the crystals, liquefied by heat and diffused in half an ounce of thin mucilage, three times a day. He reports two of the most noteworthy cases of other forms of sympathetic vomiting in which this agent proved no less valuable. In the writer's own practice he has used carbolic acid in similar doses for its sedative influence on the gastro-intestinal mucous membrane, and for its anti-fermentative action on the contents of the *primæ viæ*. An interesting case of vomiting of pregnancy treated by hypodermic injections of acetate of morphia is reported by Mr. John Harrison, of Congleton, England. In this case the vomiting was most severe and distressing, the paroxysms occurring at intervals seldom longer than fifteen minutes. The stomach would retain absolutely nothing. A grain of acetate of

morphia was dissolved in π . vi of water and injected π . j three times daily. The vomiting at once abated, and the patient grew stronger. The dose had to be increased to π . xiv twice a day. The treatment was continued for two or three months, but when the doses were intermitted there was invariably a tendency toward a relapse. This treatment was only partially successful, for a miscarriage was determined upon and was induced by drastic purgatives and ergot. Even after the fœtus was expelled the gastric irritation continued, necessitating the continuance of the morphia more or less frequently until the menses returned. The skin of the forearm was pierced two hundred and sixty times. The effect of the morphia was felt in the heightened spirits, toleration of food, and increased energy; but from the obstinacy of the sickness, and the necessity of continually increasing the doses, the continued exhibition of this drug became altogether unsafe.

The writer has long since found by his own practice, in cases of vomiting of pregnancy, that the exhibition of morphia in any form should be resorted to only as an occasional remedy; for in one case in which he allowed the patient to use morphia in sufficient quantities to control the distressing symptoms, after a few months she acquired the habit of taking by subcutaneous injections from sixteen to twenty grains a day, and even this did not fully relieve her of the uncomfortable symptoms. Mr. C. C. Fuller, of London (*Lancet*, December 4, 1869), reports two cases of vomiting of pregnancy successfully treated by ipecacuanha, which he considered far superior to hydrocyanic acid, nitrate of potassium, oxalate of cerium, opium, nitro-muriatic acid, bismuth, alkalies, and quinine. He briefly reports two cases of multiparæ, and mentions other cases which were successfully treated with this drug. One case was that of a lady, aged thirty-two years, mother of five children. She had suffered in all of her previous pregnancies with retching and vomiting occurring many times a day. At the time that Mr. Fuller was called the patient was in her fifth week of pregnancy, and the retching and vomiting were as severe as previously. He prescribed a drop of wine of ipecac in a teaspoonful of water every hour; on the second day of the treatment all retching and vomiting had ceased. The medicine was given afterward, as a rule, in drop doses on the occurrence of the nausea. During the remainder of the pregnancy it was necessary to administer only one dose a day.

J. Waring Curran once highly extolled the use of oxalate of cerium, and he mentions it as having been first used by Sir James Y. Simpson. The following is his formula:

R. Cerii oxal.
Ext. lupuli āā gr. xxiv.
Div. in pills No. xij Cap. j ter in die.

With this he exhibited bromide of potassium in

¹ Read before the Boston Gynecological Society, April 9, 1883.

gr. x doses, with the tincture of cinchona flava and spirits of ammonia. The use of this mixture and the pills he regards as an admirable plan of treatment (*Med. Press and Circular*, 1869).

Dr. S. A. Lucas Kirkdale, of Liverpool, speaks of the maximum doses (gr. iij), of oxalate of cerium as effecting the cure of nausea of pregnancy when all other well known remedies had failed (*Medical Press and Circular*, August 4, 1869). Dr. Francis Edward Image, M.A. (*Practitioner*, June, 1878), believes that the official dose of one to two grains of oxalate of cerium is useless as a rule; he advises that it be used according to Simpson in ten-grain doses. He regards such doses as more efficacious in restraining the nausea resulting from uterine irritation.

Mr. Metcalfe Johnson, of Lancaster, England (*Med. Times and Gazette*, 1871), formerly used phosphate of lime for nausea of pregnancy. He says that the disorders of the great sympathetic and its subjected organs are generally characterized by a dislike to all sweet flavors, and that the altered shape of the uterus, the altered nerve relations, the control of the ganglionic nerve to sustain the new vascular system to be established, cause an unusual demand upon the nervous energy. Much of the neuric force is derived from phosphates. The formation of the child requires phosphates for its new bones and other structures, and if these be not liberally supplied the brain and ganglionic nerves must suffer and nervous debility ensue. He refers to the ganglionic system being disturbed through the stomach, and mentions the remark once made by Coleridge, that he had hope for a person who liked his pudding. One thing curious to note in reading the above is the eagerness with which our author, like many others who have a new theory to advance, endeavors to maintain it by ingenious explanations. He seems to forget, however, the fact that sickness of pregnancy often ceases immediately after quickening, even when there is a greater demand on the neuric forces or elements in the later stages of the foetal existence.

Dr. Simmons, chief surgeon to Ken Hospital, of Yokohama (*Med. Record*, June, 1884), mentions having used chloral by the rectum in the vomiting of pregnancy. He reports three cases. In one case, the patient aged thirty years, and in the third pregnancy, there was excessive vomiting which commenced during the fifth week of pregnancy and continued until the tenth week, when he was first called to attend her. He used thirty grains of chloral hydrate in mucilage night and morning. The second day's use of the remedy arrested the vomiting, and it returned only at long intervals. Larger doses were given so as to produce a decided impression on the nervous system. Its repetition but two or three times, he remarks, will often put an end to the trouble, for the time at least.

The writer has found this an admirable plan of treatment, and in certain cases, in which a hypnotic in full doses is not otherwise objectionable,

chloral hydrate will be of great service. In several cases of vomiting of pregnancy the writer has used chloral hydrate and croton-chloral, both by injection and by suppository, with marked benefit.

Dr. Edward Copeman, senior physician to the Norfolk and Norwich Hospital (*British Med. Journal*, May, 1875), reports three cases of obstinate vomiting of pregnancy treated by a novel method. The first case occurred in June, 1874. The lady was about thirty-five years old, and was six months advanced in pregnancy. As soon as the cervix was dilated so as to relieve the tension, all vomiting ceased, and she went on to the full period. The results in the other cases were similar. Dr. Jabez Thoms, of Swansea, as early as 1868, had used one of Barnes's dilators as a means of inducing premature labor. Dilatation of the cervix was also assisted by the fingers. The patient became better the same day, and made rapid recovery, without further attempt at premature delivery. This he considers due to the relief from the tension, as in the case reported by Dr. Copeman.

The writer can refer to ten cases occurring in his practice in which a similar relief was afforded by digital dilatation. One case, however, was more obstinate. The patient's age was twenty-three years, and she was in her first pregnancy, which had advanced to the ninth week, when the vomiting became so excessive, and was continued at intervals during day and night. When he was first called, on May 25, 1881, the patient was in bed, with a large wash tub by her side, so great was the quantity of matter vomited. Acetate of morphia in small doses was prescribed, but this was only partially retained, and no relief was afforded to her distressing symptoms. Digital dilatation of the cervix was resorted to on the third day after the first visit. This was continued for about half an hour, until the first phalanx of the index finger could be inserted into the os uteri. On the next day the patient was better; and on the third day all the distressing vomiting had ceased, and she declared herself well. The patient continued better, and was confined on December 27, 1880. The child was healthy, and of the normal size at full term. The patient's mother said that during the afternoon of the day on which the writer made the dilatation of the cervix, the patient was easier than she had been for the past three weeks, though she was quite exhausted after the operation was finished.

Though this plan of treatment has been successful, it should not be inferred that it will always be so, for gastric irritation will often remain for some time, even after the foetus has been expelled, as was the case reported by Dr. Harrison. He, it will be remembered, was compelled to induce a miscarriage, but had to continue the use of hypodermic injections of acetate of morphia to relieve the gastric disturbances until the menses returned.

In cases in which either lip of the os is hard and unyielding, a urethral bougie may be used. The writer succeeded in one case in relieving the distressing symptoms by this means, and abortion was not induced. This was once accomplished by Dr. Roberts, of Portmadoc (*British Med. Journal*, 1880).

The writer once heard the late Dr. Anson Hooker, of East Cambridge, remark that he had often had the credit of relieving sickness of pregnancy by several different methods. In one case he succeeded by forced alimentation; and in another he finally succeeded, after trying many different plans, by the liberal use of Jamaica rum. This Dr. Hooker considered as accomplished through the influence of the imagination, or through the nervous and ganglionic centres; or, in some cases possibly, when the irritable stomach was about to commence a retrograde process.

In one case, in which the patient was seven weeks pregnant, and was unwilling and too timid to allow the cervix to be dilated, the writer succeeded quite well in the use of koumiss, in small quantities, and with occasional doses of hydrobromic acid prepared according to the formula of Dr. J. Milner Fothergill. The medicine was given in half-drachm doses, four or five times a day. This, according to Dr. Fothergill, exercises a powerful influence over acts of reflex origin, and general nervous excitability or exhaustion. (*British Med. Journal*, July, 1876.)

Within the past few years ingluvin has been used by American physicians, and reports of cases of vomiting of pregnancy treated by the administration of this agent have been very favorable. Some six years ago (June, 1879), the writer being called to treat a case of such obstinate vomiting, resorted to the use of ingluvin. The patient was twenty-six years old, and advanced in her third pregnancy to the seventh week. Whatever the food swallowed, it was immediately rejected. She was greatly prostrated, and her nervous system unusually depressed. Five-grain doses of ingluvin were given every four hours. The drug acted quickly, and on the next day the patient was able to retain some light nourishment. The ingluvin was continued at intervals for some weeks, and the patient rallied and went on to full term. During her previous pregnancies she suffered much from morning sickness, as well as nausea, and sometimes a good deal of vomiting. Her next pregnancy began about April, 1881. During the early stages of this pregnancy, from the sixth to the eleventh week, ingluvin could not be taken. The vomiting became excessive. There was a great deal of tenderness, simulating localized pelvic peritonitis, though there was no marked increase of temperature. The patient might have been regarded as anæmic; she really was not of a plethoric habit. In the treatment of this case small and frequently repeated doses of siphon soda, and the application of small blisters over the

fourth and fifth dorsal vertebræ at length put an end to her distressing symptoms. The application of a blister was always followed by a marked cessation of her obstinate vomiting or nausea. Such application of blisters is mentioned by Alexander Harkin. (*Retrospect*, Part 90, p. 216.) She was delivered of male twins at full term.

Some authors have spoken of forced alimentation for the cure of the sickness of pregnancy; but in the cases in which such alimentation has been successful, it has been the writer's experience that the morning sickness does *not* take the place of nausea and vomiting, which last all day. In the former case the treatment, to be successful, must be, not by deferring the substantial meal until mid-day or later, but medicinal agents and substantial food must be taken earlier in the day.

Another means of treating vomiting of pregnancy should be briefly mentioned: it is the application of the tincture of iodine to the *os uteri*. The writer first learned of this means of treatment in the year 1867, from the late Dr. Anson Hooker. Dr. Hooker, about this time, had under his care a case of obstinate vomiting of pregnancy, which finally proved fatal. Obstetric writers had previously mentioned the benefit to be derived from this course of treatment. The case in which the writer made use of iodine was that of primipara, aged twenty-two years, who began to suffer from vomiting on the sixth week of her pregnancy. Some three applications of the common tincture sufficed to relieve the distressing symptoms, and the patient went on to the full term of her pregnancy. The writer subsequently used tincture of iodine locally on the os for excessive vomiting, but having met with some untoward symptoms, was finally advised by a consultant to discontinue the practice. He is now satisfied, after an extensive use of iodine as a local application in certain morbid processes of the cervix, that it is a valuable means of relieving the sickness of pregnancy. He has used it within the past few years in some six cases, and in all of them the vomiting was speedily and effectually relieved. Churchill's tincture of iodine, when at hand, is to be preferred. Though it is desirable to make a decided impression on the cervix, it is best to be quite cautious at first, for in certain cases, in which peculiar sensibility or idiosyncrasy exists, a deep ulcer or slough may be produced, which would prove very embarrassing to the medical attendant. The writer cannot say that this plan is always preferable to the method of Copeman, but in certain cases it is worth while to adopt it.

In the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*, Vol. IV, No. 8, p. 205, will be found a report of a case of uncontrollable vomiting of pregnancy successfully treated by the use of cocaine. Dr. M. Weiss, who recorded the case in the *Prager medicinische Wochenschrift*, states that the patient, twenty-eight years old, and pregnant for the fourth time, commenced vomit-

ing three weeks after the last appearance of her menses (which was September 1). Previous to the administration of the cocaine no medicine seemed to give any relief; nutrient enemata could no longer sustain life, and the danger of death from inanition became imminent. On November 7 there was given every half hour one small teaspoonful hydrochlorate of cocaine, in sufficient quantity of spirit of wine to make a solution of cocaine 0.15 to distilled water 150.0. Even the first doses numbened the sense of taste. The patient soon revived, and was able to retain nourishment, and by November 10 was able to leave her bed. Soon after that her condition became quite satisfactory, and she was able to retain the greater part of her food. After that time she was able to attend to her usual occupation. The writer's experience with this agent has thus far been quite limited, and the chief objection to its use at present is its high price.

Before closing this paper, the writer will briefly report two cases of excessive vomiting of pregnancy, in which abortion was resorted to with success. The first case was that of Mrs. C., an English lady, twenty-one years of age, who was married in September, 1867. On February 21, 1868, the writer was called to attend her. She was then suffering from excessive vomiting, and could retain absolutely nothing. She stated that her two sisters were greatly troubled with sickness of pregnancy. She was greatly depressed; her pulse was rapid and small, sometimes exceeding one hundred and forty beats a minute. The cervix was small, and the uterus somewhat anteflexed. She had experienced from time to time a good deal of trouble from dysuria, and the urine contained traces of albumen. Enemata of beef tea or beef essence and milk were resorted to; minute quantities of iced milk and champagne were administered by the mouth.

In a short time all nourishing enemata had to be discontinued, as severe diarrhœa set in. The vomiting became so aggravated that the writer was sent for early in the morning with the message that the patient was believed to be in a dying condition. Dr. Hooker also reached the house of the patient about the same time. This was on March 1. A brief consultation was held, and it was decided that the uterus should be emptied as speedily as possible, the patient being partially collapsed. The writer at once used a medium-sized gum urethral bougie (No. 14, French scale), which was inserted into the *os uteri* and there left for some hours. Sinapisms and hot fomentations were applied to the abdomen and extremities. Sixty drops of tinctura opii in starch were given by the rectum. The patient revived; on the next day the fœtus was expelled, and by means of a strong wire curette the placenta was removed. After the fœtus was expelled all vomiting ceased, and the patient, though extremely weak, made a remarkably speedy recovery.

The next case was that of Mrs. D., an American lady, aged twenty-seven years, descended from a nervous family. She had been married five years. She miscarried at the third month during her first pregnancy, and had a slow recovery. The second labor went on to full term, but the child was feeble and was still-born. In both of these pregnancies she suffered greatly from nausea and vomiting, and during the latter pregnancy the vomiting continued more or less until the end of that term. At the time the writer was called, which was on April 25, 1881, the patient was eight weeks pregnant. She had been under the care of a lady physician, who had dosed and vesicated her to such an extent that little was left for further trial. The temperature was subnormal, and the pulse feeble and frequent. Absolutely nothing could be retained on her stomach. The patient was rapidly growing weaker, and it seemed only a matter of a short time when she must succumb unless the uterus could be safely and speedily emptied. It was with some difficulty that the writer succeeded in convincing his consultants that any advantage would accrue from a resort to so severe a measure, as so little hope was entertained of her recovery in any event. A flexible olive-tip bougie (No. 14, French scale) was inserted while the patient was in Sims's position. The bougie was left in place for fourteen hours, when uterine pains began, and by means of digital dilatation the patient aborted in ten hours after the first pains commenced. The bougie was passed according to the directions given by Mr. John C. Lucas, in a spiral direction across the fundus, the point being kept between the uterine wall and the membranes, so as to avoid violence to the latter (*Retrospect*, No. 71, p. 190). As soon as the placenta was expelled all vomiting ceased, and the patient made a safe and comparatively quick recovery.

The condition of these two cases being so unfavorable and unpromising, serves to strengthen the conviction that no case of obstinate vomiting in pregnancy, however desperate, should be abandoned until every reasonable effort has been made to empty the uterus as speedily as possible as a last resort.

MEDICAL PROGRESS.

ANATOMY AND PHYSIOLOGY.

THE DIAGNOSIS OF SUBMERSION DURING LIFE OR AFTER DEATH.—The Paris correspondent of the London *Lancet* writes that, struck with the divergence of opinion among authors as to the diagnosis of submersion having taken place during life or after death, Dr. Bougier made a new study of the subject. From experiments and autopsies at the morgue, he formulates the following conclusions: 1. The exterior aspect of the body is about the same in both cases—that is, when the body has been submerged before or