Original Articles.

THE ADVISABILITY OF INDUCING ABORTION IN CASES OF SO-CALLED UNCONTROLLABLE VOMITING OF PREGNANCY.¹

BY O. W. DOE, M.D.

THE rarity of this disease naturally prevents one from deducing principles on which to base his method of practice from his own experience. This is especially so with me, as I have seen only one indisputable case during the past twelve years.

Consequently in this paper my deductions are drawn from a compilation of all the undoubted cases that could be found referred to in the *Index Medicus* and various works on obstetrics.

In looking up the various references I want to publicly acknowledge my great indebtedness to Dr. S. H. Ayer, for the very valuable assistance he has given me.

At a recent meeting of the Boston Obstetrical Society I reported a case of so-called uncontrollable vomiting of pregnancy, which was relieved by changing the malposition of the uterus after almost every remedial agent had been unsuccessfully tried and the patient's condition had become most alarming.

In consultation, the question of inducing abortion arose and it was certainly a most difficult and anxious one to decide. The patient had taken no nourishment by the mouth for nearly five weeks, as even the mention of food would excite vomiting. During this time she had been fed by nutritive enemata. Nausea was constant and intense, and vomiting of a thin yellowish fluid, sometimes half a cupful at a time, occurred every two or three hours. Any sudden noise, or sudden appearance of one by the bedside would excite vomiting.

Notwithstanding the fact that the enemata had been well born, the patient had become greatly emaciated and too weak to move herself in bed.

There was excessive ptialism, coming on more frequently at night; at other times thirst was intense, tongue parched and dry, breath very offensive, and, along the course of the œsophagus and at the epigastrium, was marked tenderness. Pulse 116, temperature 97°.

The cervix was firm and unyielding; the os only slightly patulous. The uterus was markedly anteverted, the fundus resting against the rami of the pubes, and, on examination, could be raised up out of the cavity of the pelvis, but fell back again directly upon the removal of the finger. She was within three or four days, as near as could be determined, of being three months advanced. Taking into consideration the unyielding and firm condition of the cervix, I reasoned that were abortion to be induced she was far too weak to bear the shock necessarily attending it, and even if she happily withstood this there was the probability of hæmorrhage, which, in one so weak, would at its very outset prove fatal. Furthermore, should she surmount even these two dangers, there still remained a third, namely, septicæmia, which one would almost expect to follow in a person so reduced when abortion was artificially and forcibly produced. In favor of delay and trusting to other means was the fact that in her preceding pregnancy the nausea and vomiting though much less severe, yielded suddenly

and completely at the beginning of the fourth month after the attending physician had, on vaginal examination, by chance raised the uterus high up out of the cavity of the pelvis. Furthermore, there was no continued irritability of the bowels, so that, as a rule, the enemata were well retained. Had at this time from any cause rectal alimentation been impracticable, and the elevation of the uterus and retention by vaginal support proved inefficient, even in the face of every threatening danger, I should have advised rapid abortion under ether and full hypodermic stimulation. Should the result have proved fatal, I should have considered that the error in treatment ought to be referred to the delay, rather than to the method employed.

The exciting cause of the vomiting in this case seemed to be wholly the displacement of the uterus and consequent pressure upon the pelvic parts. As soon as the pressure was permanently removed, by raising the body of the uterus out of the pelvic cavity, the vomiting and nausea instantly ceased. A peculiar feature illustrating the principle of cause and effect here was that as soon as the vaginal tampons were at all displaced, so as to allow the body to prolapse or antevert, the nausea and vomiting would directly return. Looking back upon this case and noting each stage of the disease as it unfolded itself, and remembering how inefficient all therapeutic agents proved, I should be inclined to follow in another case a course of treatment like the following: rectal alimentation combined with chloral and bromide as soon as the vomiting became pronounced; careful examination to detect any malposition of the uterus and as soon as observed to remedy it by the use of a proper pessary and with the tamponing of the vagina with the object of raising the body as far out of the pelvis as possible. Should no relief follow soon after the beginning of the fourth month, or if even earlier no relief followed the correction of the displacement, and the patient's strength was rapidly diminishing, or if rectal irritation became continuous, I should unhesitatingly induce abortion. Or, more concisely, impracticable rectal alimentation combined with continuous vomiting, wholly unrelieved by correcting any existing uterine displacement, attended with rapid pulse, offensive breath, subnormal temperature and marked increasing prostration would hereafter decide me to induce abortion at whatever the period of pregnancy might be.

Under the conditions I have just expressed there is no doubt in my mind as to the advisability of inducing abortion in cases of so-called uncontrollable vomiting of pregnancy, still it will be but fair to present to you the various differences of opinion upon the subject. Every physician has probably either seen or read of cases of death from this terrible complication of pregnancy, and yet many eminent practitioners say that abortion without exception is entirely unnecessary. Dr. Mortimer H. Jordan, of Birmingham, Ala., says: "Among other eminent men I will mention Cazeaux, Burns, Dubois, Desermaux, Carl Braun, of Vienna, and Henry F. Campbell, of Augusta, Ga., who state that artificial production of abortion is never justifiable for gravid nausea." Dr. Campbell says: "That under the careful and systematic application of rectal alimentation artificial abortion for the relief of gravid nausea can be banished from practice even as a last resort." On the other hand, I quote from Dr. Davenport as follows: "Denman, Merriman, Burns,

¹ Read before the Obstetrical Section of the Suffolk District Medical Society, December 16, 1895.

² Trans. of the Med. Assoc. of the State of Alabama, 1883.

The Boston Medical and Surgical Journal, 1878, St. Albans, 1879, p. 39, 40.

Davis, Lee, Ashwell, Blundell, Churchill and Condie all advocate the induction of premature labor, without reference to the period of gestation; if the symptoms and condition of the patient demand it, then it is to be done." J. Marion Sims writes as follows:⁴ "During my residence in Paris some years ago, I saw two deaths from pregnancy-vomiting, and I saw two cases that were snatched from the jaws of death by the induction of abortion. Professor Trousseau and Dr. Johnston of Paris were consulted in these cases and both agreed that prompt abortion was the only means of saving life." Dr. Murphy sums up four cases as follows:⁵ "Thus in four cases of excessive vomiting followed by exhaustion, three were lost through hesitation and delay; and one was saved by promptitude in inducing miscarriage."

Lusk says:⁶ "When the vomiting is literally uncontrollable, a rare event where the physician commands the full coöperation of his patient, and death from starvation threatens, there remains as an ultimate resource the artificial induction of abortion or premature labor."

Dr. Scott says:⁷ "It is criminal to allow a patient to go to the last extremity before an effort is made to produce an effect which we know is certain to relieve her and preserve a life which is the 'right of woman.'" On the other hand, however, cases are recorded where the patient sank steadily and in which life had been despaired of by the physician in charge, and in which abortion had been refused by the patient, and yet upon the exhibition of some new remedy, a change for the better has appeared and a steady gain made from that time on. P. Dubois⁸ speaks of a case which illustrates this point, it being one which had been abandoned by himself and colleague and which afterward promptly recovered on the exhibition of a purgative.

Dr. Engelmann says:⁹ "Of course abortion is to be induced as a last remedy, but it is always to be used in time, and as soon as it is found that all others fail." The principal fact is, practitioners wait too long. Dr. Coles says:¹⁰ "I have never had a case in my own practice where the induction of labor was necessary, but I have seen two cases where this had to be resorted to. In these cases the women were *in extremis*; one of them died notwithstanding the abortion. She had gone too far. We had waited too long for this spontaneous change."

Leishman says:¹¹ "The conclusion at which Caz-

eaux and others have arrived is that under no circumstances are we justified in inducing premature labor for the relief of vomiting of pregnancy." Cazeaux reports seven cases of induced abortion with six deaths. According to his estimate, one in seven is the average of escapes from death after the operation (induced abortion). He thinks the most desperate cases, as he cites several to show, have a better chance on the expectant plan, with such nutriment as can be retained, than in the resort to induced abortion.

Out of 118 cases collected by Gueniot there were 72 recoveries and 46 deaths, represented as follows:

	Recoveries.	Deaths.
Without abortion in very severe cases after diversified treatment	31	28
Following spontaneous abortion also in very severe cases	20	7
After abortion or induced labor in cases more or less desperate	21	11
Total,	72	46

Dr. Alfred McClintock in a paper before the Dublin Obstetrical Society read in 1873, reported 36 cases in which abortion was induced with 27 recoveries and nine deaths.

In selecting the following 48 cases, which I am about to report, there was considerable difficulty experienced in deciding whether a case should be truly called "uncontrollable" in the popular sense of the word, or simply obstinate. It is evident, however, that all cases in which death occurred without artificial abortion were certainly uncontrollable, and that by adding to the list of recoveries, cases which were more or less doubtful, the percentage of deaths became correspondingly less.

All of the cases are very briefly reported, some from necessity, others from choice, the idea being not to bring forward a full and complete report of each case, but simply to place before you such points as have a direct bearing on the subject of this paper. I think, however, the principal point to be brought out is clearly shown; namely, that after the emptying of the uterus, whether artificially or otherwise, the vomiting, with very few exceptions, soon ceased, and that in nearly all cases recovery took place, a fatal termination occurring in those in which interference had been too long deferred.

I shall first present to you twenty-eight cases of uncontrollable vomiting, in which artificial abortion was not induced, after which I shall read twenty cases which were terminated by artificial abortion.

TWENTY-EIGHT CASES OF UNCONTROLLABLE VOMITING OF PREGNANCY, IN WHICH ARTIFICIAL ABORTION WAS NOT INDUCED.

No.	Reported by.	Age.	Multip. or Primip.	Vomiting.		Treatment.	Termination.	Condition and Remarks.	Reference.
				Began.	Ended.				
1	F. Minot, M.D. Boston, Mass.	Young.	M ₂	8th week.	20th wk.	Nutritive enemata.	Recov.	Vomiting was soon accompanied by excessive salivation. "Pulse gradually rose to upwards of 130 in the minute." There was "much emaciation, prostration, loss of sleep, and depression of spirits." "Any excitement, even an accidental loud noise in the room would cause urgent retching and rejection of anything that happened to be in the stomach." Quickening May 22; permanent relief June 1.	Boston Medical and Surgical Journal 1880, cii. p. 302.

⁴ Arch. Med., N. Y., 1880, iii, p. 269, 276.

⁵ Murphy's Midwifery, 2d Edition, p. 94.

⁶ Science and Art of Midwifery, p. 120.

⁷ St. Louis Courier of Medicine, 1884, 12, p. 61-67.

⁸ Med. Rec., N. Y., 1885, xxvii, p. 250.

⁹ St. Louis Courier of Medicine, 1884, 12, p. 61, 67.

¹⁰ St. Louis Courier of Medicine, 1884, 11.

¹¹ St. Louis Courier of Medicine, 1884, 12, p. 271.

TWENTY-EIGHT CASES OF UNCONTROLLABLE VOMITING, IN WHICH ARTIFICIAL ABORTION WAS NOT INDUCED. (Continued.)

No.	Reported by.	Age.	Multip. or Primip.	Vomiting.		Treatment.	Termination.	Condition and Remarks.	Reference.
				Began.	Ended.				
2	E. Copeman, M.D.	25	P	6th mo.	?	Internal remedies failed. Rectal alimentation for 3 weeks. Cervix dilated (Copeman's method).	Recov.	"Vomiting and retching became almost incessant." Vaginal examination found posterior lip of cervix hard and unyielding. "Effect (Copeman's method) was instantaneous, the stomach retaining the first thing administered."	British M. J., Lond., 1879, i, 736.
3	J. Farrant Fry, M. D., Swansea.	?	M ₄	6th week.	8th week.	Internal treatment failed. Cervix dilated (Copeman's method).	Recov.	The effect (Copeman's method) was almost immediate; food was retained and patient quickly regained strength. Went to term.	British M. J., Lond., 1880, i, p. 399.
4	J. F. Baldwin, M.D., Columbus, Ohio.	29	P	6th week.	10th wk.	Internal remedies with failure. Cervix dilated (Copeman's method).	Recov.	"Nitrate of silver to erosion, gave no relief." After dilatation of cervix "all vomiting ceased as by magic."	Ohio Medical Record, Columbus, 1879, 1880, iv., p. 198-200.
5	F. W. Lester, M.D., Key West, Fla.	30	M	Almost from time of conception.	14th wk.	Internal treatment failed. Ether to pneumo-gastric nerves under sternum mastoids, alternately.	Recov.	For four weeks previous to ether treatment, patient vomited every few moments. Ether was applied every two hours the first day for ten minutes at a time. In three days vomiting ceased entirely.	Med. Record, N. Y., 1880, xviii, 474.
6	Jesse Crounse, M. D., Knowersville.	34	M ₄	Soon after conception.	After 6th month.	Internal remedies failed. Moral treatment: slight irritation of os, pretending attempted abortion which patient desired. "Each remedy was in turn given a trial and still no improvement, but on the contrary I saw her wasting and becoming more feeble every day."	Recov.	With first child suffered from nausea and vomiting for seven and one-half months. In second pregnancy, labor was induced at three and one-half months, successfully. In third, labor was again induced at third month without any trouble. In this case, patient begged physician to induce labor, and finally he consented. He, however, merely irritated os with a probe, she thinking an abortion had been performed. Vomiting ceased and on return of same was soon relieved by same method. No vomiting after sixth month. Patient was delivered at term.	Med. Annals, Albany, 1882, iii, p. 226-228.
7	T. C. Wallace, M.D., Cambridge, N.Y.	?	P	8th week.	13th wk.	Everything internally. Copeman's method. Nitrate of silver (solid) to cervix. Relieved by pop-corn.	Recov.	"Confined to bed for more than four weeks, pale, languid, pulse 120 and weak, and so prostrated as to be unable to raise head from pillow. For the past sixteen days her stomach has absolutely refused to retain anything; everything, food, medicine, even a swallow of water being instantly rejected." Rectal alimentation only for past six days. Immediate relief after pop-corn.	Med. and Sur. Rep., Phila., 1883, xviii, p. 172.
8	John N. Upshur, M.D.	24	P	7th week.	10th wk.	Internal treatment failed. Relieved by Hodge's double lever pessary (closed).	Recov.	Retroversion discovered on 10th week. Relieved by pessary. Previous to insertion of pessary, patient's condition became steadily worse, she "becoming more prostrated and her disgust of food increasing daily."	Am. J. Obst., N. Y., 1884, xvii, p. 915, 917.
9	J. W. Ayle, M.D.	?	M	2d month.	2d month. 2d week.	Relieved by Horsford's Acid Phosphate and chicken-water, other internal remedies having failed.	Recov.	"Nausea and vomiting ceased." "Acted like a charm."	Med. Sur. Rep., Phila., 1884, p. 737.
10	Dr. Frewitt.	Young.	?	About 2d month.	?	Morphine subcutaneously.	Recov.	"Not a particle of food for a week" previous to morphine treatment. Patient was kept under the influence of morphine all the time. "Takes none now, though she did get somewhat of the habit."	St. Bartholomew's Hosp. Rep., Lond., 1883, p. 287.
11	C. E. Stedman, M.D., Boston, Mass.	Young.	M ₂	4th week.	14th wk.	Everything internally. Etherial tinct. of iodine to cervix. Rectal alimentation.	Recov.	First labor normal. "When I visited her remedies prescribed had lost effect, and she was in an alarming condition; every particle of food had been rejected for forty-eight hours. Patient had headache, fleeting delirium, pinched countenance, dry brown tongue, constant nausea, little sleep, epigastric and abdominal pain, vomiting up everything, and rapid pulse. The os was patulous and very red. Cervix was flexed and very soft. External Tr. Iodi applied to cervix liberally. Vomiting ceased in twenty-four hours. Patient vomited only twice after that time."	Boston Med. and Sur. J., 1883, 109, p. 529.

TWENTY-EIGHT CASES OF UNCONTROLLABLE VOMITING, IN WHICH ARTIFICIAL ABORTION WAS NOT INDUCED. (Continued.)

No.	Reported by.	Age.	Mutil. or Princip.	Vomiting,		Treatment.	Termination.	Condition and Remarks.	Reference.
				Began.	Ended.				
12	Henry F. Campbell, M.D., Augusta, Ga.	29	M ₃	?	About 16th wk.	Everything internally. Nitrate of silver (solid) to cervix. Rectal alimentation alone for 52 days	Recov.	Patient aborted at three and one-half months. Fetus dead. Nausea did not cease for over two weeks, during which time she was nourished solely by enemata and for a much longer time this "had to be continued as supplementary to her very gradually returning power to take and retain food by gastric ingestion."	Gynecological Transactions, 1878, iii, 268-298.
13	Henry K. Leake, M.D.	?	?	7th week.	12th wk.	Everything internally. Cervix thoroughly dilated.	Recov.	Labor set in (probably due to dilatation of cervix) about the 12th week. "Patient recovered after a slow and painful convalescence from a pelvic cellulitis, which supervened on the expulsion of the fetus. Immediate relief to vomiting after abortion."	Med. Rec., N. Y., 1885, xxvii, p. 256.
14	W. J. Collins, M.D.	38	M ₇	4½ mos.	6½ mos.	Internal remedies only.	Recov.	Patient aborted at six and one-half months. Labors natural before.	St. Bartholomew's Hosp. Rep., Lond., 1883, p. 125.
15	Dr. Murphy, London.	?	P	Almost from time of conception.	About 3d month.	Internal remedies only.	Death.	"About the third month it (the vomiting) became so severe as to cause great emaciation and exhaustion." Several remedies were used to no purpose, and at the eleventh hour the question was asked—"What further could be done?" She was fast sinking; the time was past to attempt the induction of premature labor, and she died in about two days afterwards."	Murphy's Midwifery, 2d ed., p. 94.
16	Dr. Haighton.	?	M ₄	About 6th month began to grow worse.	Probably about 7½ months.	Internal remedies only.	Death.	"She had most obstinate vomiting in two previous pregnancies." Sickness would sometimes intermit. Slight improvement caused the doctor to defer artificial abortion. The next day she was taken exceedingly ill and died in two days."	Obst. Med., vol. ii, p. 871.
17	Dr. Johnson.	30	P	?	4th mo.	Internal remedies only.	Death.	"Pregnancy was not detected, but the disease was attributed to the pylorus." "The sickness (vomiting) and emaciation were the only symptoms present." "She died, and after death no morbid appearances were observable in any part of the body. The uterus contained a fetus about four months old. This patient was literally starved to death."	Lancet, Lond., Mar. 3, 1838, p. 825.
18	J. Marion Sims, M.D., N. Y.	Young.	P	2d week.	?	Internal remedies only.	Death.	Artificial abortion advised and refused. Died of heart clot started up "by getting out of bed to answer a call of nature."	Arch. Medical N. Y., 1880, iii, 269-276.
19	Geo. Davenport, M.D., E. Randolph, Vt.	25	P	?	?	Internally only.	Death.	Married about one year. Attacked with nausea and vomiting and died in five weeks in spite of all treatment. Pregnancy was not recognized, the diagnosis being a low form of bilious vomiting, great emaciation. Pregnancy confirmed by autopsy.	Tr. Ver. M. Soc. 1878, St. Albans, 1879, p. 39, 40.
20	Geo. Davenport, M.D., E. Randolph, Vt.	Young.	P?	5th week.	12th wk.	?	Death.	"She died of exhaustion."	(Same as above)
21	Geo. Davenport, M.D., E. Randolph, Vt.	Married several years. ?	?	?	?	Internal remedies. Morphine per rectum.	Death.	"Called in consultation." "She gradually sank and died."	(Same as above)
22	W. S. Brown, M.D., Stoneham.	26	M ₃	About the 12th wk.	16th wk.	Internally only. Usual remedies had no effect.	Death.	"Labor pains set in on October 14th, about 2 A. M., and the fetus was expelled at 7 A. M." "Convulsions and coma supervened and terminated the scene about 9 A. M." "One thing remarkable was the absence of emaciation." The question occurs, "What was the cause of death?" "It was not due to starvation, nor to Bright's disease, nor to any operation upon the womb. Exhaustion of nervous energy, therefore, seems the most probable answer."	Jour. of the Gynecological Soc. of Boston, vol. ii, p. 208.
23	A. H. P. Leuf, M.D.	22	P?	Probably 6th to 8th week.	About 12th wk.	Internally only. Pregnancy not suspected.	Death.	The patient was not married. Pregnancy was not suspected. "The case was mistaken for gastric ulcer." "The symptoms also pointed to a local gastric	Proc. Med. Soc. County Kings Brook'n 1883, 1834, viii, 48-50.

TWENTY-EIGHT CASES OF UNCONTROLLABLE VOMITING, IN WHICH ARTIFICIAL ABORTION WAS NOT INDUCED. (Continued.)

No.	Reported by.	Age.	Multip. or Primip.	Vomiting.		Treatment.	Termination.	Condition and Remarks.	Reference.
				Began.	Ended.				
23	(Continued.)							affection." The vomitus was at times bloody. She was admitted to hospital Feb. 26, and died Mar. 10." "This case demonstrated the necessity of sometimes emptying the uterus."	
24	Giles S. Mitchell, M.D.	28	P	Probably about 6th week.	15th wk.	Everything internally. Nutritive enemata.	Death.	"The induction of premature labor was suggested in consultation, but as the patient had almost reached the period of gestation when the uterus escapes from the pelvic cavity, and vomiting usually ceases spontaneously, and as it met with strong opposition from patient herself, we concluded to wait." Improved for about two weeks but being allowed to eat solid food, vomiting set in and patient died in a few days."	Obst. Gaz. Clin. 1885, viii. p. 115-132.
25	Wm. H. Veatch, M.D., Carthage, Ill.	27	P	Begun in 3d week, not troublesome till about 15th wk.	21st wk.	Everything internally. Cervix cauterized.	Death.	Vaginal examination at 15th week, (when patient was first seen) showed extreme ante-version. Patient refused to have any attempt made to correct displacement. Steady failure up to the 20th week, when she aborted. No vomiting occurred after the first indication of abortion. Died in one week of septicæmia.	Peoria Medical Monthly, 1884, 1885, p. 682-687.
26	W. J. Collins, M.D.	?	P		29th wk.	Internally only.	Death.	Finally labor set in, vomiting ceased immediately after birth. Patient died three days afterwards. Child lived.	St. Bartholomew's Hosp. Rep., Lond., 1883, p. 121.
27	O. E. Stedman, M.D.	24	?	8th week.	16th wk.	Everything internally. Churchill's Tr. Iodi. to cervix.	Death.	Quinia in moderate doses was the only drug given. Fed by rectum. Enemata finally rejected. "Progressive failure from the start, and death occurred two weeks from the date of admission." Temp. subnormal for first few days, an hour or two before death temp. rose to 106.5°. Pulse was never above 130.	Boston Med. and S. Jour., 1883, 109, p. 529.
28	See reference.	24	M.	1st week.	12th wk.	Internal remedies with failure. Tr. Iodi. to cervix. Nutritive enemata.	Death.	Patient did not vomit constantly; was very delirious the night before death. No vomiting for six to ten hours previous to death. Enemata were almost invariably retained.	Boston City Hosp. Rec., vol. 232, p. 6. (Medical Records.)

SUMMARY.

Recoveries	14	{ Multip. 8 Primip. 4 Not stated 2	Deaths	14	{ Multip. 3 Primip. 9 Not stated 2
Spontaneous abortion with recovery	3	{ Vomiting ceased 2 Not stated 1	Spontaneous abortion with death	3	

TWENTY CASES OF UNCONTROLLABLE VOMITING OF PREGNANCY, IN WHICH ARTIFICIAL ABORTION WAS INDUCED.

No.	Reported by.	Age.	Multip. or Primip.	Vomiting.		Treatment.	Termination.	Condition and Remarks.	Reference.
				Began.	Ended.				
1	Dr. Churchill.	Young.	M.	About 4th month.	6th mo.	Internal treatment failed. Ovary punctured, followed by ergot.	Recov.	"We tried all the usual remedies with occasional relief, but the vomiting returned, and finding that she could retain no nourishment whatever, that her bodily powers were worn out, that her pulse was steadily 120, I determined at the sixth month to induce premature labor." "She was delivered of a dead fetus, recovered rapidly and has since born a child at full time."	Churchill's practice of midwifery, 4th edition.
2	J. Farrant Frye, Swansea.	37	M.	Probably about 4th month.	?	Internal remedies failed. Artificial abortion. Method not stated.	Recov.	"The patient's condition became desperate; labor was induced as the only means of saving life."	British M. J., 1880-1, p. 399.

TWENTY CASES OF UNCONTROLLABLE VOMITING, IN WHICH ARTIFICIAL ABORTION WAS INDUCED. (Continued.)

No.	Reported by.	Age.	Multi- or Primip.	Vomiting.		Treatment.	Termination.	Condition and Remarks.	Reference.
				Began.	Ended.				
3	W. J. Collins, M.D.	26	M ₄	About 6th month.	?	Introduction of a gum elastic catheter 3 inches.	Recov.	"Vomiting ceased immediately after birth."	St. Bartholomew's Hosp. Rep., Lond., 1883, p. 123.
4	S. G. Moses, M.D., St. Louis, Mo.	Under 30 years.	M	?	Between 2d and 3d month.	Bougie to fundus between membranes.	Recov.	"Never vomited after introduction of bougie and eventually aborted."	St. Louis Courier of Med., 1884, 11, p. 252.
5	S. G. Moses, M.D.	Under 30 years.	M ₂	?	Between 2d and 3d month.	Ovum punctured.	Recov.	"When first seen was in moribund condition." Out of danger in twenty-four hours. In first pregnancy vomited several weeks and then aborted, with relief from vomiting. Several children since without trouble.	St. Louis Courier of Med., 1884, 11, 250-262.
6	R. Scot-Skining, M.B. et Ch. m., Edin., Phys. to the Prince Alfred Hospital, Sydney.	21	?	3½ mo.	About 7th mo.	All the usual medicinal remedies were exhausted. Finally, introduction of bougie and dilatation of cervix with Barnes' fluid dilators.	Recov.	Patient was a passenger on board an emigrant ship, sailing from Plymouth, Eng., to Australia. "The morning sickness was intensified by sea-sickness." Baas' Ale was retained when all else was immediately vomited. "For the first few days after delivery the patient remained in a very low state, but with the entire absence of the distressing vomiting which had before existed. Food was now readily retained, and in an astonishing short time I had the satisfaction of seeing her in a condition which removed all further anxiety from my mind."	The Australasian Medical Gazette, Sept. 1884, vol. iii. No. 12.
7	Dr. Scott.	? Probably young.	P	6th week.	10th wk.	Artificial abortion. Method not stated.	Recov.	"Nausea left from time fetus came away."	St. Louis Courier of Med., 1884, 12, p. 61-67.
8	Dr. Coles.	?	?	?	?	Artificial abortion. Method not stated.	Recov.	Patient was relieved from nausea and vomiting instantly.	St. Louis Courier of Med., 1884, 11, p. 259-260.
9	Dr. Ward.	38	P	?	"In the 8th mo."	Everything internally failed. Induced abortion. Hot douche to internal os followed by Barnes' dilator.	Recov.	Patient was seen "on account of such excessive prostration due to continuous vomiting." "Every therapeutic means had been adopted without avail." Podalic version. Dead hydrocephalic child with peeling epidermis. "In less than twenty-four hours she was able to retain whatever nourishment was given." Rapid recovery.	N. Y. Med. J., 1880, xxxi. p. 406.
10	Wm. Warren Potter, M.D., Batavia, N. Y.	23	P	? Probably about 10th week.	14th wk.	Internal remedies failed. Nitrate of silver. Tinct. iodi. locally failed. Artificial abortion.	Recov.	"There was inter-current catarrhal bronchitis present." "Rectal alimentation and medication having failed to arrest the progress of malady, the direful alternative of putting an end to the pregnancy was forced upon me."	Am. J. Obst., 1880, xiii, p. 85, 98.
11	M. H. Jordan, M.D.	24	P	?	14th wk.	Internal treatment failed. Nitrate of silver to cervix failed. Artificial abortion. Cervix dilated and fetus scooped out by hand.	Recov.	"When first seen, patient had been confined to bed for five weeks with a distressing and uncontrollable nausea and vomiting." She was "much emaciated, quick pulse, some fever, and retained comparatively nothing on her stomach." There was considerable difficulty in bringing on labor pains but finally it was successfully accomplished. Patient was so weak at time of abortion, that she could not turn herself in bed. "After the operation she never became sick at the stomach, or vomited a single time." In two weeks she was able to be carried home from Birmingham, Ala., to Chattanooga, Tenn. "If this woman had not have aborted, she certainly would have died."	Amer. Pract., Louisville, 1879, xx. 306-309.
12	W. T. Wright, M.D., Winfield, Kansas.	24	P	6th or 7th week.	About 10th wk. Thirteen days after serious symptoms set in.	Everything internally failed. Artificial abortion. Pains set up by electricity, ergot sounds and tents failing.	Recov.	"Pulse gradually rose until it reached 140-150 at time of abortion, at which time the following conditions were present:" "She was a fleshy woman, now the skin hangs loose on her limbs, eyes deeply sunken; a markedly pinched appearance of her features. Respirations 40 per minute, pulse rapid and indistinct, surface hot and dry, extreme dyspnea, restless throwing about of limbs, general tremor. On the day following the abortion she called for food which was refused and retained."	Peoria Medical Month., 1883, 4, iv, p. 6-14.

TWENTY CASES OF UNCONTROLLABLE VOMITING, IN WHICH ARTIFICIAL ABORTION WAS INDUCED. (Continued.)

No.	Reported by.	Age.	Multiple or Primip.	Vomiting.		Treatment.	Termination.	Condition and Remarks.	Reference.
				Began.	Ended.				
13	T. G. Thomas, M.D., New York.	? Young.	P	3d week.	10th wk.	Artificial abortion. Cervix dilated and fetus and placenta scooped out with ordinary wire curette.	Recov.	Patient expelled a "phantom" tumor about three months before, thinking herself to be pregnant. When first seen had been vomiting two and one-half months. As a result of the vomiting she had become excessively emaciated. After curetting the vomiting ceased at once and patient recovered entirely.	Am. J. Obst., N.Y. 1881, xiv. p. 674.
14	N. C. B. Haviland, M.D., Danville, Vt.	23	?	5th or 6th week.	15th wk.	Internal treatment failed. Artificial abortion by injection of tepid water, one ounce, into uterine cavity.	Recov.	This case was complicated by attacks of petit mal. The hypodermic injection of morphine was the only drug that had any effect. Nitrate of silver to cervix freely failed, though for a time it seemed beneficial. After labor was started patient fainted at every pain, "rallying by repeated hypodermic injections of brandy and liq. ergotæ." After delivery, "no symptoms of fainting again occurred, and patient immediately commenced to take cracked ice and brandy, with no return of nausea." Patient had a tedious recovery and has since had irregular attacks of petit mal.	Am. J. Obst., 1883, xvi. No. 2, p. 165-168.
15	Geo. Davenport, M.D., E. Randolph, Vt.	34	M.	4th wk. ?	8th or 7th week.	Internal remedies failed. Artificial abortion—sound introduced.	Recov.	No nourishment in stomach for over two weeks. Life sustained solely by nutritive enemata. Pulse 120-130. "Could not turn herself in bed," nor move her lower limbs. Features pale and sunken. Death appeared inevitable. "The patient, notwithstanding her great prostration, made a good recovery, slowly to be sure, but with not one untoward symptom."	Tr. Ver. M. Soc. 1878, St. Albans, 1879, 39, 49.
16	See reference.	20	P	5th wk.	About 17th wk.	Internal remedies failed. Tr. iodi. to cervix. Artificial abortion by means of sponge tent and sound passed into uterine cavity.	Recov.	Patient was unmarried. Last catamenia Dec. 25, 1868. Nausea two weeks later. Vomiting began on 5th week. Entered Boston City Hospital, February 6, 1869. On February 25, vomiting having continued almost incessantly, the following condition was present:—"Has lost much flesh, cheeks flushed, countenance haggard, conjunctivæ suffused, eyes dull, tongue red without coat, pulse 132 and very small—os uteri to be dilated by sponge tents." February 28—"Large sponge tent withdrawn, leaving os fully dilated." "Sound passed in about three inches, very little hæmorrhage followed—no severe pain." March 1—"Vaginal examination shows external os dilated, but internal os closed. Patient's condition remained about the same until March 31, when she was seized about 9 P. M. with sharp pains in hypogastric region, which by morning assumed a bearing-down character. Pains lasted about twenty-four hours, when both fetus and placenta were expelled, scarcely any hæmorrhage following. Patient made a slow, tedious convalescence. Vomiting did not entirely stop for over three weeks. Was discharged well, June 10, patient being in hospital four months and four days.	Boston City Hosp. Med. Records, vol. 35, p. 132.
17	Geo. T. Elliot, M.D., New York.	32	M.	About 6th month.	Between 7th and 8th mo.	Internally everything failed. Artificial abortion by means of hot douches.	Death.	No trouble with previous labors. "Supporting treatment was resorted to by the mouth and rectum, but she steadily lost ground from the date of her admission (to hospital)." Child born living apparently between seventh and eighth months, small and puny. "Patient died in about ten hours." "Intelligence uninterruptedly clear, vomiting never having been checked."	Obst. Clin., p. 187.

TWENTY CASES OF UNCONTROLLABLE VOMITING, IN WHICH ARTIFICIAL ABORTION WAS INDUCED. (Continued.)

No.	Reported by.	Age.	Multipl. of Primip.	Vomiting.		Treatment.	Termination.	Condition and Remarks.	Reference.
				Began.	Ended.				
18	Dr. Engelmann, St. Louis, Mo.	Young.	P	?	6th mo.	Artificial abortion.	Death.	"Patient died in eight to twelve hours after abortion was produced. Vomiting was finally stopped by application of carbolic acid to cervix and a tampon of tannic acid, glycerine and carbolic acid; and it was thought possibly the chances might be better if the ovum were removed."	St. Louis Courier of Medicine, 1884, 12, p. 61-67.
19	S. G. Moses, M.D., St. Louis, Mo.	Under 30 years.	P	?	Between 2d and 3d month.	Artificial abortion. Ovum punctured.	Death.	Patient had been "vomiting for five or six weeks almost incessantly; could retain absolutely nothing." At time of abortion patient was moribund, feeble pulse, fetid breath and foul tongue. Vomiting ceased in twenty-five or thirty minutes. "Death from absolute starvation."	St. Louis Courier of Med., 1884, 11, p. 250-262.
20	S. G. Moses, M.D., St. Louis, Mo.	Under 30 years.	M ₃	?	Between 2d and 3d month.	Artificial abortion. Ovum punctured.	Death.	"Persistent vomiting." "Could retain nothing." After abortion, vomiting stopped. Patient "actually starved to death." Died in twelve hours.	St. Louis Courier of Med., 1884, 11, p. 250-262.

SUMMARY.

Recoveries.....	16	{	Multipl. 6	Vomiting relieved by abortion instantly or very soon 2	
		{	Primip. 7	Vomiting relieved before abortion.....	1 with death.
		{	Not stated 3	Vomiting not relieved by abortion.....	1
Deaths.....	4	{	Multipl. 2	Average time of death after abortion, in 3 cases.....	10½ hours.
		{	Primip. 2	Average time of death after abortion, in 1 case.....	Not stated.
I have thought it might be interesting to compare the results of treatment in all the well marked cases of this affection that I have been able to find reported, and hope that it may lead to a full conference of opinion by the gentlemen present, as to their individual ideas regarding this disease and their experience in the treatment of the same.					
Vomiting relieved by abortion instantly or very soon (a few hours).....	11				
Not stated in report.....	4				
Not relieved (for three weeks).....	1				

RECURRENT HEADACHE IN CHILDREN, AND ITS TREATMENT.

BY RUSSELL STURGIS, M.D.

It is not uncommon to see children complaining of headache whose general health is apparently good. Such children usually are troubled with headache more or less severe, recurring at intervals of days or weeks, and each attack lasting from a few hours to a day or more. You will generally find that the child has been subject to these headaches for a year or more before treatment is sought for this particular symptom. As a rule, it will be noticed that the patients are of nervous temperament, that they do not sleep well, that they grind their teeth at night, and frequently suffer from bad dreams and nocturnal terrors. Frequently these children will have a spasmodic cough, particularly at night, even if there be no signs of pharyngitis or laryngeal irritation to account sufficiently for such cough. It may be noticed that the child has difficulty in keeping its hands quiet, that if told to keep standing quietly it will constantly change its weight from one foot to the other. In temper the child is apt to be fretful. Nothing particular is to be noticed about the face with the exception of a peculiar heavy expression about the eyes. This expression is noticed in people with migraine, and also in any depressing illness. Dr. Warner,¹ after careful examination, thinks this expression is due to lack of tone in the orbicularis palpebrarum, giving "an appearance of flabbiness about the lower eyelid; the skin hangs too loose with an increase in the number of folds, and in place of falling neatly

¹ Physical expression.

against the lower eyelid as a convex surface, it falls more or less in a plane from the ciliary margin to the lower margin of the orbit, a condition often best seen in profile." This heavy expression about the eyes is not noticed in all cases of recurrent headaches.

These headaches generally come on in the morning, though the child may be perfectly well on going to bed the night before. The pain is generally localized in some particular part of the head, either side, frontal region or vertex. The pain is severe, during the seizure, usually preventing study or play. It is not unusual for there to be optical illusions of sparks, or bands and spots of color. There may or may not be nausea during the attack. The child generally feels cold, and in winter prefers to lie near the stove huddled up in a chair.

The picture is very like that of migraine in the adult, with this difference: the pain is more apt to be across the forehead and may be at the base or at the vertex of the skull; there is rarely vomiting or nausea with the attack, and such attacks seem to yield to a treatment which is of very little use in hemispheric of the adult.

Dr. Eustace Smith in his latest book, considers the headaches identical with migraine. Dr. Warner is inclined to think that these recurrent attacks are but a mild form of chorea. It has been shown by Dr. Hughlings Jackson and by Dr. Herman that in cases of chorea about seventy-five per cent. of the children suffered from recurrent headaches.

Since 1882 I have seen sixteen cases of recurrent headache. At first I spent a long time unsuccessfully in trying to relieve the patient by attention to diet and