life. Dr. T. Gaillard Thomas, in the history of twenty-one cases of extra-uterine pregnancy,¹ gives the account of six cases in which electricity was used. All of these cases recovered. And, finally, Dr. A. D. Rockwell has published seven cases of the same anomaly, all successfully treated by galvanism.² In his cases, as well as in most of Garrigues' and Thomas's cases, the change of the size and shape of the sac could be noticed either immediately or in a short time after the application of electricity. We could not perceive any change either in size or shape of the mass until nearly three months later. But the mass ceased to increase in size from the day the current was applied; the subjective feelings of the patient commenced to improve very soon after, and menstruation has appeared regularly every four weeks since.

ON THE USE OF IODOFORM INSUFFLATION WITHIN THE UTERUS IN PUERPERAL SEPTICÆMIA.³

BY W. E. BOARDMAN, M. D.

MUCH has been said, volumes have been written, since the middle of the eighteenth century, upon the affection known, until late years, only as puerperal fever. Indeed, it may be said that no subject connected with the process of parturition has given rise to greater diversity of opinion as to its origin, nature, and treatment. Even at this day our medical journals are overflowing with the diverse views of eminent practitioners, the individual opinions of many of whom ordinarily are accepted as law in matters appertaining to the theory and practice of obstetrics. This fact, perhaps, of late years, has never been more succinctly emphasized, to our minds, than during the recent discussion of the subject by the very distinguished members of the New York Academy of Medicine. Yet I think I do not err when I state that, in the matter of the origin of the disease, the position taken by Dr. Thomas is sustained by most authorities.

At all events I am satisfied to range myself upon the side of those who believe that there is no essential puerperal fever; that the affection is a septicæmia; that the septic germs are micro-organisms which do not exist normally in the lochia or within the genital tract, but are developed in the organic substances of putrefaction under varying conditions; that these germs find an entrance into the system so as to induce two types of the same disease essentially, which may develop either separately or in common, according to the fact whether the initial lesion is one of the lymphatics, or of the veins, or of both together. Acting upon this theory it has been my practice, in the way of treatment, to attack first the original seat of the septic process, with the view of arresting the germ development within the uterus or vagina, and then to endeavor to correct the evils already induced in the system. In my previous terms of service at the Lying-In Hospital it was my custom to rely upon carbolic acid for the former purpose; but continued experience appeared to demonstrate that this agent did not always accomplish the work which most obstetricians claimed for it, and, during my service in the summer of 1883, I determined to make use of some other remedy, should the oc-

casion seem to arise. In July such a case presented itself, and I beg leave to offer the following record of an undoubted case of puerperal septicæmia in which the septic poisoning was arrested by the insufflation of iodoform within the uterus and throughout the vagina, after ordinary methods, including intra-uterine injections of carbolic acid, had failed to stop the progress of the disease, as indicated by the gradual increase in the intensity of the unfavorable symptoms.

M. H., single, primipara, entered the Boston Lying-In Hospital, and was confined early in the morning of July 11, 1883. The labor was normal, vertex presentation, O. R. A., the child weighing six pounds. The perinæum was intact, and before her discharge the uterus was found to be slightly anteflexed, three inches in depth, with the cervix lacerated bilaterally.

Referring to the accompanying clinical chart it will be observed that, from the first record, taken on the morning following the completion of the labor, the temperature showed an unfavorable condition of things. During the first two days this was reduced temporarily under the use of sponge baths. On the third day it was noticed that the lochia were scanty and rather foul. Milk appeared in abundance, necessitating an efficient supporting of the breasts. On the sixth day, at eight P. M., an intra-uterine injection of a two per cent. hot carbolic solution was given on account of the offensive lochia and gradually increasing temperature, which then marked 103.2° F. A few shreds only came away, but the temperature fell to 102° F. On the seventh day the intra-uterine injection was repeated at evening, when the washings were reported to have been rather muddy and containing a few shreds. A chill followed this procedure, and it was ascertained that she had previously had "chills and fever," though the history in this respect was obscure. On the eighth day the same course was followed, except that the chill was prevented by the use of a subcutaneous injection of morphine. Still the pulse and temperature continued to rise, and on the next, the ninth, day, intra-uterines were given both morning and evening, and each furnished muddy washings with a few shreds. Yet at evening on this day the temperature reached 105.4° F. and pulse 114.

On the morning of the tenth day the temperature had fallen somewhat, to 103.6° F.; but the injection gave the same washings as before. The injection was supplemented by insufflation within the uterus and vagina of iodoform, and at evening the temperature was 103.5° F., and the insufflation of iodoform was repeated, the uterus having been thoroughly washed out with the hot carbolic solution. On the following morning, it will be observed, the temperature had fallen to 100.2° F., and the pulse had dropped from 102 to 89. On account of the patient's favorable condition and the character of the lochial discharge, the intra-uterine treatment was omitted, but repeated at evening. It will be noticed that on this evening visit the temperature had again risen to 104.6° F., and at 7.30 P. M. a temperature of 106.8° F. was recorded. At the same time the pulse began to increase in frequency, and the respirations were 30 in the minute. But the record affords good reasons, apart from the intra-uterine disease, to account for the sudden unfavorable turn of affairs. Early in the morning a small erysipelatous blush was observed over the lower sacral region. In the afternoon she complained of pain in right chest, with slight cough and viscid and reddish sputa. Ex-

¹ Transactions American Gynecological Society, 1882.

² New York Medical Record, February 17, 1882.

³ Read before the Obstetrical Society of Boston, April 12, 1884.

amination of the chest detected sibilant râles in the right mammary region and at the right base, and an explosion of fine râles after coughing; no dullness on percussion. At evening of this, the twelfth, day, the ninth and final intra-uterine injection of carbolic solution was given, the fluid coming away clear, and therefore the insufflation was omitted. The temperature was 106° F., and on the following day at the same hour 105.8° F., with a pulse of 30. From this time the lochia were no longer offensive, and ceased to appear on the fourteenth day; but the condition of the patient became

and continued to be alarming for several days: in fact, it was believed that she could not possibly survive, not from active sepsis, however, for this process evidently had been arrested promptly by the iodoform. Her serious illness during these days was obviously due to the affection of the lungs and a succeeding peritonitis and diarrhœa, all of which finally induced such an extreme condition of collapse that she must have died had she not been favored by the indefatigable attention, both night and day, of Dr. Worcester, the senior house officer.

NOTE. The sign *o* indicates an injection. * indicates an intra-uterine injection of a two per cent. solution of carbolic acid. In the succeeding charts * indicates an injection of a solution of corrosive sublimate, one to two thousand.

While the history of this case in all its details of symptoms and treatment forms a most interesting record, I have not thought it best to detain the Society by its recital at length, but have endeavored to present briefly the salient points which serve to illustrate to my mind the very marked beneficial effects which were obtained by the employment of iodoform within the uterus where carbolic acid had failed to arrest the septic process, a procedure, I may add, which to my knowledge had not then been employed by others.

Reviewing the record we find that for nine days the patient gradually became worse, and evidently from septicæmia; that the intra-uterine injections of carbolic acid and accompanying internal treatment appeared to have no effect in arresting the process within the uterus, as evidenced by the character of the washings and the symptoms; that on the morning of the tenth day the insufflation of iodoform was done, with the result of an evening temperature 0.1° F. less than in the morning. At evening the iodoform was employed again, and on the following morning the temperature was 100.2° F. and pulse 89. On the evening of this day the washings had improved and iodoform was employed for the last time, though another intra-uterine injection

was given on the next day, on account of the unfavorable change in the patient's condition, and with the fear that sloughing within the uterus had recommenced; but the results showed that the change was due to other and new processes of disease unconnected with the uterus, for the lochia now rapidly diminished and disappeared altogether on the fourteenth day, while the new affections ran their course with alarming symptoms, which, however, she survived and was discharged well August 9, 1883, thirty days after entrance.

Remarks. As to the best method to be employed in order to do the insufflation, *cito, tuto, et jucunde*, I would recommend the use of a large-sized bottle, a modification of the one which has been devised by our associate Dr. Forster; but in place of the flexible efferent tube it is better to use a more rigid one with a terminal opening. With this one will be sure to reach the fundus and to cover the entire interior of the uterus with the powder. With the proper arrangement of the tubes within the bottle, and avoiding undue force in the compression of the bulb, there can be little or no danger of forcing air into the uterus. As to the danger from the use of iodoform in these cases, I think a review of the reported cases of poisoning by this agent will not deter us from the future employment of a promising method of dealing with this very dangerous malady to the lying-in woman.

During a recent term of service at the hospital for the first quarter of this year I abolished the use of carbolic acid altogether and substituted a solution of corrosive sublimate 1 to 2000. For obvious reasons this season of the year has usually been more prolific in septicæmic cases, many of which have been fatal. This year, however, the hospital has been comparatively free from the disease, and I am persuaded that the immunity has been due to the lavish employment of the sublimate solution which was required to be used for the toilet of the physicians, nurses, and patients upon all and every occasion, and for douches. In spite, however, of the utmost care, some few cases gave evidences of septicæmia which the sublimate solution did not arrest, and in these I resorted to the use of iodoform by insufflation, with what appears to me to have been very happy results. In a few others the iodoform was employed at once with the apparent effect of arresting the septic process in its incipency. Possibly in these latter cases the sublimate solution or, may be, a carbolic acid injection might have produced equally good effects. The brief records of some of these cases are presented herewith, together with charts of the temperature and pulse in each. All appeared to me to be undoubted cases of septicæmia, and it is an interesting and instructive fact to be observed from a study of them that the septic poisoning evidently was arrested either at once or in a very brief time. The charts of Driscoll and Crowley apparently seem to contradict this view, but the clinical records show that with the former the second rise of the temperature and pulse was due to the development of a very serious, indeed, usually fatal, skin affection, which Professor White kindly inspected and diagnosed as impetigo herpetiformis or herpes impetiginiformis, while in Crowley's case the subsequent elevation was due to the development of a cellulitis or peritonitis, or both, for which she still remains in the hospital.

In none of these cases were any symptoms of iodoform poisoning presented, unless the skin affection be

classed under this head, and I understood Dr. White to state that this could not be due to anything of the kind. While I do not claim that these cases prove the point which is the basis of the paper, yet it seems to me that we may receive a suggestion from the recital which perhaps will aid us in dealing with this protean malady incident to the parturient period.

Maggie Driscoll. Labor normal. Lochia became offensive on the fourth day: uterine and ovarian tenderness quite marked, severe headache, loss of appetite, considerable nausea, and great prostration. Washings from intra-uterines were muddy. Treatment: Intra-uterines of corrosive sublimate 1 to 2000 and iodoform into uterus, peptonized milk, koumyss and beef tea, brandy, enemata of milk, brandy, and laudanum: Recovery. Skin affection, — impetigo herpetiformis.

Katie Crowley. Labor normal. On second day developed abdominal tenderness, which increased in

severity, also tenderness over uterus. Rigidity of abdominal muscles, much headache; lochia remained normal. Nausea, tympanites, considerable perspiration. Treatment: Intra-uterines of corrosive sublimate 1 to 2000, iodoform into uterus; stimulation, liquid diet ad libitum; morphia (one quarter grain) suppositories. Cellulitis or peritonitis on right side.

Elizabeth Page. Labor normal. On fourth day developed uterine tenderness, which continued during the following ten days. Lochia were normal and remained so throughout sickness. Diarrhœa began on seventh day and continued for a week in spite of treatment. On eighth day she vomited once, but not after that. Uterus was large and boggy. Washings from intra-uterines contained a few shreds. These, with great prostration, were the principal symptoms. Treatment: Intra-uterines of corrosive sublimate 1 to 2000, and iodoform blown into uterus; peptonized milk, beef tea or brandy every hour; same per enema. Diarrhœa mixture of tr. opii and astringents. Chloral and morphia at night. Poultices and turpentine stupes to abdomen. Recovered.

Nina Clare. Labor normal. On the second day developed tenderness in left ovarian region and headache; lochia became scanty and offensive. On seventh day had a chill: appetite poor: considerable thirst. On the ninth day diarrhœa began, but was soon controlled. Considerable prostration. Vomited on eighth and ninth days. Washings from intra-uterines contained few shreds. Treatment: Intra-uterines of corrosive sublimate, 1 to 2000, and iodoform blown into uterus. Stimulation. Liquid diet ad libitum. Opium and astringent mixture for diarrhœa. Recovery.

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		Temp.	Pulse.	
1	M.	99° F.	100	
	E.	100.6	100	
2	M.	102.2	110	
	E.	102.2	115	
3	M.	100.8	114	
	E.	103.2	112	
4	M.	100.2	100	Two dejections.
	E.	101.8	92	
5	M.	103.1	115	Intra-uterine sublimate injection.
	E.	102.1	100	
6	M.	100.7	104	Two dejections.
	E.	101.7	112	
7	M.	104.8	146	Chill: sublimate intra-uterine and iodoform.
	E.	104.6	120	
8	M.	101.7	108	
	E.	104.6	112	
9	M.	102.5	114	Ten diarrhoeal dejections.
	E.	101.8	120	Nine diarrhoeal dejections.
10	M.	99	100	
	E.	99	104	Four diarrhoeal dejections.
11	M.	99.7	90	One diarrhoeal dejection.
	E.	99	90	One diarrhoeal dejection.
12	M.	99	82	

Mary Smith. Labor normal. Lochia remained normal. Some uterine tenderness discovered on fourth day, but not marked; headache; impaired appetite. Treatment: Intra-uterines of corrosive sublimate, 1 to 2000, and iodoform. Liquid diet ad libitum. Recovery.

		Temp.	Pulse.	
1	E.	99.4° F.	80	
2	M.	98.1	68	
	E.	98.4	68	
3	M.	98.2	64	
	E.	100.1	64	
4	M.	99.6	100	Sublimate intra-uterine and iodoform.
	E.	103	118	Two dejections by enema.
5	M.	99.6	115	
	E.	101.7	106	
6	M.	100.7	102	
	E.	102	118	
7	M.	99.3	86	
	E.	100.2	102	
8	M.	98.4	80	Two dejections.
	E.	99.7	94	One dejection.
9	M.	98.4	86	
	E.	99.4	98	
10	M.	98.4	80	

Martha Korngiebel. Labor normal. Lochia stopped on the second day; tenderness in both ovarian regions, especially in left; considerable headache. On fourth day a piece of membrane, size of a silver dollar, came away with the usual evening douche: its odor was quite offensive. Treatment: Frequent feeding on liquid diet; stimulation; intra-uterines (corrosive sublimate solution, 1 to 2000): temperature 115° F.: iodoform blown into uterus. Recovery.

		Temp.	Pulse.	
1	M.	98.6° F.	100	
	E.	99.5	104	
2	M.	99.1	88	
	E.	101.7	106	Enema: one dejection.
3	M.	103	130	Sublimate intra-uterine injection.
	E.	104.3	134	Sublimate intra-uterine and iodoform.
4	M.	101.4	132	Sublimate intra-uterine.
	E.	102.3	122	Sublimate intra-uterine and iodoform.
5	M.	99.1	84	
	E.	99.2	86	
6	M.	99.1	94	
	E.	100.8	100	
7	M.	103	120	Sublimate intra-uterine and iodoform.
	E.	102	110	
8	M.	101.2	110	
	E.	102.7	120	
9	M.	100.6	98	One dejection.
	E.	100.7	102	Two dejections.
10	M.	100.7	110	
	E.	100.2	116	Four dejections.
11	M.	98	90	
	E.	99.2	96	
12	M.	98.4	90	

Beatrice Mayberry. Labor normal. Had a chill on morning of third day, followed by tenderness in both ovarian regions. Lochia normal and remained so. A second chill on fourth day. Between third and sixth days had chilly sensations quite frequently. Diarrhœa began on fourth day and lasted two days. Dejections very offensive. Considerable headache, nausea, and vomiting. Full bladder occasioned much distress. Had to be catheterized. Induration in right ovarian region, where tenderness was extreme. Washings from intra-uterines muddy. Treatment: Intra-uterines of corrosive sublimate, 1 to 2000, and iodoform, quin. sulph. gr. iii. t. i. d., liquid diet ad libitum, stimulation. Recovery.

		Temp.	Pulse.	
1	E.	98.7° F.	55	
2	M.	98.1	52	
	E.	98.4	52	
8	M.	100.2	85	Chill at 3 A. M. Temp. 102.2° F.; P. 88.
	E.	103.5	105	Intra-uterine sublimate injection.
4	M.	103.2	110	Sublimate intra-uterine and iodoform.
	11 A. M.	107.4	140	Chill.
	E.	101	104	Six offensive diarrhœal dejections.
5	M.	101.3	98	Six offensive diarrhœal dejections.
	E.	103.4	104	Seven offensive diarrhœal dejections.
6	M.	99.7	88	
	E.	101.2	80	
7	M.	100	82	
	E.	102	88	
8	M.	100.8	100	
	E.	101.8	88	
9	M.	100.9	86	
	E.	101.6	87	
10	M.	99	78	
	E.	101.6	82	
11	M.	98.4	75	

Hospital Practice and Clinical Memoranda.

TWO CASES OF HÆMORRHAGE INTO THE PONS VAROLII.

BY R. B. BONTECOU, M. D., TROY, N. Y.

IN a former number of the *Boston Medical and Surgical Journal* is an article by Dr. Hurd on Apoplexy of the Cerebellum. It brought to my mind two cases, occurring in my practice, of apoplexy of the pons Varolii in brothers of about the same age. From the rather uncommon locality of the lesion it may be well to place them on record for the benefit of statistics.

The first case, E. R., was a man aged forty-seven years, six feet high, weight about two hundred pounds, married, and keeper of a saloon and restaurant, and of previous good health and history, except occasional slight attacks of gout. Without any known premonitory symptoms he was suddenly seized, on March 3, 1853, with coma and complete abolition of sensation and motion; respiration was difficult and irregular, and deglutition impossible, and he expired in about an hour and a half after the attack.

Autopsy, twenty-four hours after, revealed nothing pathological in the cerebrum, cerebellum, medulla, or membranes, but upon section of the pons a clot was discovered, about the size of a cherry, pressing on the floor of the fourth ventricle.

Second case, W. R., brother of the first, aged fifty-six years, of medium stature and development, married, and by occupation a saloon-keeper, personal and family history good, was seized suddenly, without any known premonitory symptoms, March 25, 1870, with coma and

complete loss of sensation and motion, and expired in an hour and a half from the seizure.

Autopsy, twelve hours after, revealed a clot in the centre of the pons, the size of two cherries, tearing and disorganizing its structure to a considerable extent. No other pathological changes were discovered within the cranium.

In a long practice, with rather extensive opportunities for post-mortem observations, I have found only these two cases of apoplexy of the pons, and, occurring as they did in brothers, think it may be of interest to some. These persons were not considered as intemperate, although the nature of their occupation undoubtedly led them to the habitual use of stimulants.

Reports of Societies.

PROCEEDINGS OF THE OBSTETRICAL SOCIETY OF BOSTON.

C. M. GREEN, M. D., SECRETARY.

APRIL 12, 1884. The President, DR. C. ELLERY STEDMAN, in the chair.

DR. INGALLS read a paper on Some Cases in Pædiatrics, which was briefly discussed by Drs. Abbot, Rotch, and C. E. Stedman.

EXTRA-UTERINE PREGNANCY.

DR. CHADWICK read a paper, written by Dr. Fanny Berlin, on a Case of Supposed Extra-Uterine Pregnancy.¹

DR. W. F. WHITNEY, present by invitation, said that he had examined the specimen given to him by Dr. Chadwick. In connection with this he had looked at the decidua in the cases of extra-uterine pregnancies, which were preserved in the Warren Anatomical Museum, thirteen in number. The cells in this case were as large as those found in the latter cases, and of the same irregular shape. They presented none of the distinctions to which attention has been called by Wyder² as existing between the menstrual and puerperal decidua. The orifices of the glands were well marked. As far as this specimen went it would certainly point to the case as one of extra-uterine pregnancy.

DR. F. G. MORRILL, present by invitation, was not sure of the diagnosis in this case between extra-uterine pregnancy and pelvic hæmatocele: he had seen a case of hæmatocele which greatly resembled the one reported, in which the uterus lay in the left inguinal region, displaced there by an effusion: the uterine cavity measured four inches. There were pain, fainting attacks, and hæmorrhage. The mass was aspirated, found to contain blood, and was laid open and the cavity washed out: the patient made a good recovery. Dr. Morrill believed this case might have passed for one of extra-uterine pregnancy, had it not been proved to be otherwise.

DR. BOARDMAN asked for the limit of time when galvanism can be safely applied: he believed it was unsafe in the later months.

DR. JAMES R. CHADWICK, when called in consultation to this case by Dr. West on April 28, 1883, ventured to make the diagnosis of extra-uterine foetation

¹ See page 243 of this number of the JOURNAL.

² Archiv für Gynäkologie, Band xiii., S. i.