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TREATMENT OF, ETC.

A PAPER READ BEFORE IOWA STATE MEDICAL SOCIETY,
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PUERPERAL CONVULSIONS.

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I respectfully invite your attention for a few minutes to one of the most formidable and perilous complications of the lying-in-room "Puerperal Convulsions."

I do not propose to occupy the time of this society in giving the literature and medical history of this subject, as every member present, can peruse the same at his leisure, written in monograph or in the periodicals of medical literature, and it will prove more satisfactory than for me to even attempt to write it up.

What I have to say on this subject pertains more to my own experience and observation in the treatment of this formidable disease, and if I am able to contribute any new ideas, or impress upon your minds any valuable information, whereby any good may be conferred upon suffering women, I shall have accomplished all that I hope to do.

The relative frequency as well as danger of convulsions, is shown in a report by Dr. T. Moore Madden, of Dublin, from a collection of hospital reports giving 50,928 deliveries, in which there were 138 cases of convulsions, or one case in every 370. Of these 109 were primipara; 89 recovered, and 36 died, or one death in every 3 5-6 cases; of children, 70 were born alive and 51 stillborn.

Authors speak of the Centric and Eccentric causes of this disease, and among the latter may be enumerated indigestable food in the stomach, morbid matters and secretions of any kind in the bowels; irritation of bladder and rectum, &c. I propose to dispose of all cases of this disease depending upon such causes, in a few words, by advising when called to a case of convulsions, depending upon indigestable food and a loaded stomach, to at once evacuate the same by an emetic of 20 gr. zinci sulphas. If irritation is in the bowels, give a stimulating enema, or active cathartic, Oleum Tiglii. If from hemorrhoids they may be divided and allowed to bleed freely; if from clots in neck or body of Uterus, let the fingers or hand be introduced and remove them.

I pass over this part of the subject thus hastily, that I may arrive at what I conceive the most interesting and important
part for discussion, or the *concentric* causes, and among these, and most important, albuminuria.

Thus far I have attended ten cases, and of this number on applying the usual test of heat and nitric acid, seven showed albumen in considerable quantity, and three out of the seven, on applying heat alone, nearly the entire quantity would coagulate and become solid. Of the remaining three cases of the ten I never could form a satisfactory opinion as to the cause. Seven of these were primipara. In nine cases the convulsions preceeded the labor and in one followed it an hour after delivery had been completed. Eight cases recovered and two died, or a loss of one in five, nine children were saved and one stillborn.

Therefore when called to a case of convulsions, and not dependent upon the previous causes mentioned, if the patient is stout and plethoric, don't hesitate to bleed, and that quite freely, repeat if necessary, then put the patient under the influence of either chloroform or a mixture of hydrate chloral and bromide potassa, of each one-half dram, mucilage acacie one-half ounce, and give by enema rather than by mouth, for two reasons—The patient is generally comatose and deglutition partially or entirely suspended. Secondly the mixture placed in the rectum seems to have greater control over the convulsions by its more direct application to the nerves immediately connected with the uterus. If the patient has not completed her full period, and this treatment quiets the spasms, our attention should be immediately turned to the kidneys, and by administration of mild diuretics restore their healthy action as soon as possible, and the case may proceed to a favorable termination at full time. But oftener you will find that the cause is such that there can be no hope of permanent relief until the uterus is evacuated and the sooner it is accomplished the better. How can this be accomplished the most expeditiously and with safety to the patient?—Writers advise introducing the gum catheter between the membranes and uterus walls, or the douche, to excite contraction.

Now most of these cases occur during the last weeks or at full term of gestation and I think the finger is the quickest, safest and best method to excite immediate uterine action, and has the advantage of always being on hand, will excite labor if it has not commenced and will aid in completing it if it has. If labor has not begun, oil the index finger and every 15 minutes, or oftener if necessary, slowly insinuate
it into the os and carry it up to the membranes and in a very short time you will discover that contraction has commenced, and will continue until it has completed its work. You can greatly expedite it by gently and carefully dilating with one or more fingers.

When dilated, rupture the membranes, and occasionally they can be ruptured before complete dilation is accomplished, the patient having been kept under the influence of one of the above mentioned anaesthetics. If the pains are active and forcible the case may be left to nature to complete, but if the pains are feeble and spasms threatening, better introduce the hand, turn the child and deliver at once, or if the head has been rapidly forced into the pelvis the forceps can be applied and the labor completed. It is at this point the judgment of the skilled physician is called into requisition; whenever the condition of the patient is such as demands active manual or instrumental interference, or can be safely left to nature to complete.

With the permission of the society I will give the history of four cases that will better illustrate what I have attempted to show, and the advance, if any, in treatment.

Of the two cases dying, the first was Mrs. H., aged 22, primipara, eight and one-half months gone.

Was called in consultation with Dr. Ward, Nov. 18, 1866, at 10 a.m. This patient was a sight to behold, I never saw anything to compare with her condition. She was enormously swolen from head to feet, eyelids so edematous as to close the eyes, except as raised by the fingers. There was also considerable edema of lungs. This condition had been slowly coming on for eight weeks and no measures taken to prevent it, as no advice had been sought. The family thought it only incident to pregnancy, and all would be well when delivered. Convulsions commenced early in the morning and recurred every fifteen to forty minutes, the patient becoming unconscious at the first. There was no indication of commencing labor; the urine was heavily loaded with albumen; the patient was so pale and anemic it was not deemed prudent to bleed, but she was put under the influence of chloroform, brisk stimulating enemas given and bowels acted upon. The chloroform at first seemed to control and hold in check the paroxysms. It was deemed advisable to bring on labor. A soft catheter was inserted between the membranes and uterus to excite pains. There was little or no urine being secreted. It was four hours
before there were any indications of commencing labor. The chloroform had lost control of the convulsions, and they returned with renewed violence, and very frequent. The pains were feeble and inefficient. Barnes' dilators were used, but we made haste very slowly; the first stage was not completed until 9 o'clock in the evening. The pains at that time were quite active, and soon forced the head into the pelvis. We finally completed the labor about 12 o'clock p. m., by applying forceps and delivering a child that had probably been dead three or four days. Afterbirth came away at once and uterus contracted firmly. Convulsions continued as before and patient sank rapidly into rather an apoplectic condition and died next morning.

Mrs. F., aged thirty-five, multipara, seven months advanced in gestation, enjoyed very fair health during this time. On the eve of May 10, 1872, she had been out spending an evening with friends, retired to rest at 10 o'clock, feeling usually well. At 3 o'clock, A. M., of 11th, she was awakened and soon after taken with severe flooding. Dr. Whitman was called and administered to the necessities of the case and returned home, but at 5 o'clock was hastily summoned again. On returning he found her in convulsions; she was unconscious from the first. I was sent for as counsel and saw her about 6 o'clock. Having lost quite a large quantity of blood when first attacked, we did not deem it necessary to bleed, but she was then taking chloroform by inhalation, and as it did not control the spasms it was deemed advisable to bring on labor as soon as possible. The urine, tested by heat and nitric acid, was nearly all albumen. Notwithstanding she had lost blood largely at the first, there was no indication of uterine contraction.

I proceeded to insinuate my index finger into the os-uteri, repeating it every ten minutes. In about half an hour pains became quite frequent, and in an hour and a half from commencement the child was born alive. The uterus contracted readily without great loss of blood. Convulsion recurring every half hour to an hour. Chloroform repeated when demanded. The convulsions ceased about fifteen hours after confinement, but patient, though there was a fair secretion of urine, never returned to consciousness and slowly failed and died eighty hours after confinement. The child lived nearly three months.
Mrs. D., aged 19, primipara, small and of delicate organization, was taken in labor at full time, Sept., 1875, a homeopathic doctor attending her. Had pains during early part of night and gradually increased until 3 o'clock in the morning, when they became severe and bearing down, and she went into convulsions. The child was born about 8 o'clock. She had three or four convulsions preceding the birth of child, and they kept following repeatedly afterwards, so that counsel was sought and three Homeopathic physicians saw her, gave her such remedies as their wisdom and judgment dictated, but she grew worse; during the day convulsion following convulsion in rapid succession, until they all gave her up to die.

At 6 o'clock in the evening her mother came to my house and besought me, with tears in her eyes, to visit her daughter; that the doctors said there was no hope and she expected her to die, but would not be satisfied except I would go and see her and pronounce the case hopeless. I was then in charge of a case of labor and told her I could not take charge of her daughter, but that I would go and see her. I wrote out the following prescription and sent to the drug store and took it up with me:

Hydrate chloral, Bromide Potassii, each 4 drachms; mucilage acacae, 4 ounces. Shake well and give tablespoonful by enema.

The other doctors were to have been sent home, but on my arrival I found two there, and the house crowded with people to see the patient die. I am free to say it was the most unpromising case I ever saw—patient unconscious and had been from commencement of convulsions; respirations very hurried and lungs loaded; pulse hardly perceptible at wrist, and not less than 160 per minute; pupils inactive, and was then in a spasm that they said had lasted over an hour. I inquired if they had used chloroform, they said, "Under the advice of counsel they had given it, but it had aggravated the case and they had discontinued it." I then gave her by enema a tablespoonful of the mixture I had with me and left one of them in charge of the case, directing him to repeat the injection in one hour, if there was no change for the better, but if spasms ceased, not to repeat it. Only one dose was given, the convulsions ceased and the patient recovered.

Mrs. C., aged 30; primipara; supposed to be eight and a half months advanced in pregnancy; of slight make and
delicate constitution. On the night of July 19th, 1877, re-
tired to rest, feeling as well as usual, and slept well until 3
o'clock A. M., of 20th, when she complained of not feeling
well and immediately had a convulsion. I arrived at the
house in half an hour; she was then having the third spasm
and was insensible from the first attack; the convulsions
were of the most violent character. Not deeming venesec-
tion safe in her condition, I immediately commenced giving
chloroform. The next spasm came on in about ten min-
utes, but was partially abated. I continued the chloroform,
but she had another spasm at the end, of fifteen minutes,
notwithstanding she seemed well under the influence of the
anesthetic. I then gave her forty grains Bromide Potassii by
injection, which was retained, and she had no further
spasms, but passed into a quiet sleep. I could find no
indications of commencing labor. I remained with her
until 5½ o'clock, when the medical attendant, a "homeo-
path," who was expected to attend her, arrived and I took
my departure, well pleased to be relieved and yet well
knowing the complete incompetency of the man in such an
emergency. Being summoned to another patient, I did not
reach my office until 10 o'clock, when I learned I had been
repeatedly sent for to return and take charge of the case.
Being fully satisfied the patient would die if left to him
and the counsel he would be likely to summon, I decided to
return and reached the case at 11 o'clock.

I learned she had had a return of spasms at 8 o'clock and
during the interval had had four. The homeopathic doctor
had been giving her 10 drops Tr. Gelseminum in a goblet of
water, teaspoonful every ten or fifteen minutes. He took
his departure, and no doubt felt a great responsibility was
lifted from his shoulders. Introducing a catheter and draw-
ing a little urine and heating it over a lamp, it became
nearly solid with albumen, showing the cause of the con-
vulsions, although there was but very little puffiness or
swelling anywhere to indicate the trouble.

I now examined the patient carefully, and there was no
indication of commencing labor. She had been comatose
from the first, breathing heavy, face congested and every-
thing about the case looked unfavorable. While with her
in the morning I was satisfied that chloroform alone would
not control the convulsions, so I immediately gave her
hydrate chloral and bromide potassii, each one-half dram,
and mucilage acaciae, one-half ounce, by injection, and
retaining it by pressing a napkin to the parts. I decided that labor must be brought on at once, and proceeded to insinuate my index finger into the os-uteri, and by persistent pressure I passed it up to the membranes, finding the neck of the os was near a half inch and showing full time was not reached. The patient rested quietly until 12½ P. M., when she had a spasm, and I repeated the injection as before, which caused her to rest tolerably quiet, though at times there would be twitching of muscles, as though she was going to have a spasm. I would then give her a little chloroform by inhalation and it would pass off. Every ten or fifteen minutes I would insinuate my finger into the os and use forced dilatation, and by 1 o'clock I found there were commencing pains. At 2:20 she had another spasm; repeated the injection; pains coming regularly; os dilating and I still urge it up with my fingers. There is no water in membranes to assist in the dilatation. At 3:50 P. M. she had another convulsion, a very hard one; I repeated the injection and decided as soon as the os was sufficiently dilated I would turn and deliver. At 4½ P. M. thought I could turn, but pains were strong and quickly forced the head down into pelvis. I then thought it best to wait and let nature work her course. At 5½ o'clock the head was distending the perineum, and she had another spasm, but pains were very strong, and at 6½ o'clock P. M. the child was born in a moribund condition, but after a half hour of hard labor, revived and sent joy throughout the house. Firm pressure had been made over uterus and I delivered the placenta immediately after child had revived, but patient had another spasm as the afterbirth passed away. Uterus contracted firmly and I hoped all trouble would end now, but at 7:30 there was another convulsion, seemingly harder than ever. I now gave one-third grain morphine, hypodermically, and she had no further return of spasms. I ordered beef essence, an ounce, and five grains of quinine by enema, every four hours, with teaspoonful spirits nitre dulcis, hoping to excite the kidneys to increased action. I saw patient at 11 P. M. and found she was resting quietly, pulse 115, surface moist; had retained injections; ordered them continued.

July 21, S a. m.—Patient has rested quietly, pulse 108, skin soft and moist; introduced catheter and could draw off but a tablespoonful of urine, heat and nitric acid showed it nearly all albumen; continued injections beef essence, qui-
nine and nitre as before, every four hours; if any nervousness, the bromide potassa.

July 22.—Patient about same, pulse 100; drew off three ounces urine, showing kidneys are beginning to act a little; respiration not as hurried, face not as much congested; has swallowed nothing, and unconscious still.

23.—Shows signs of returning consciousness, though she did not speak until the following day. I will not continue the case, as it has been very lengthy, and the patient convalesced nicely from this time.

Of the ten cases treated, three of them were bled from the arm twice, but it did not control the convulsions, and I was finally obliged to resort to chloroform, constantly given until the child was born, then aided by opium the convulsions ceased and recovery took place. No. 2 that died, also lost blood largely from uterus. We thus concluded that bleeding alone, as a general thing, will not control puerperal convulsions, but in plethoric subjects it should always precede the anaesthetic or whatever course is determined upon.

In most of the extreme cases of convulsions, the system is loaded down and poisoned with urea, the kidneys become congested and cease to act, and when it is allowed to progress to the stage and condition of No. 1 that died, I don't think any course of treatment could possibly reach her case, and yet forcible dilatation with the finger, and chloral and bromide potassa were not known twelve years ago, when this case occurred. With the history of the two cases of recovery just detailed, might we not be justified in hoping for a more favorable result?

In all bad cases, the patient is unconscious from the first and deglutition suspended, consequently all nourishment and remedies given to aid in restoring the secretion of the kidneys, and "upon this our success depends," must be given by enema. Wet and dry cups over kidneys are recommended, with hot fomentations to loins, with diluent drinks when able to swallow, and mild diuretics, such as colchicum, are especially appropriate. The question may be asked, why not use opium at first? I do not use it, for the reason that its action tends to produce congestion of the brain and that we desire to avoid at first, and then it may tend to interfere with dilatation of the os-uteri. But after labor has been completed, a more permanent anodyne effect is required. Also in all cases of anemia from loss of blood or serious change in quality, then lauda-
num with coffee or brandy, by mouth or rectum, are most capital stimulants and supports to the system. But don't forget the beef essence and quinine, spirits nitre, or whatever diuretic you may use, give by the rectum as often as every four hours, and tone up and support the system at once after delivery, for there is complete exhaustion. The first favorable indications noticed are diminished frequency of pulse and respiration, with increased secretion of urine and activity of pupils. When this occurs I expect the patient will recover; but if not the coma becomes more profound and the patient sinks lower and lower, until death closes the scene. I have stated previously one reason why I think hydrate chloral and bromide potassa, given by enema, preferable to chloroform. Another reason is, the strong diuretic tendency it has, and we thus early begin to excite the secretion of urine, long before other diuretics can be used, and in the treatment of this disease time is everything. I feel that I have already trespassed upon your time, but I cannot close this subject without specially calling the attention of the profession to the importance of early looking after all cases each one is expecting to be with at labor. By giving instructions to patient and friends, the alarm will be early sounded and by prompt and judicious treatment directed to the kidneys, this evil may be averted.