

8. That the raving which so frequently attends pneumonia is often due to the existence of acute disease in the brain.

9. That this disease of the brain may even lead to paralysis.

10. That the antiphlogistic treatment, including bloodletting, and modified according to the demands of each case, is the best treatment which can be adopted in the early stages of the acute and sthenic disease.

ART. XIX.—*Contributions to Midwifery*, No. VIII.—*Chloroform in Parturition*^a. By THOMAS EDWARD BEATTY, M.D., M.R.I.A., Professor of Midwifery to the Royal College of Surgeons in Ireland; Physician to the City of Dublin Hospital; Vice-President, Dublin Obstetrical Society; Honorary Member, Obstetrical Society of Edinburgh, &c.

It may be in the recollection of some of the members of the Obstetrical Society, that in the last paper on the use of chloroform in midwifery, published by me, I stated my belief that there was no case of ordinary labour in which it would be found necessary to produce complete sopor, but that the mode and extent of administration set forth therein would be quite sufficient in all cases to procure the relief sought for by the use of the drug. A very short time elapsed, after the publication of that essay, when I met with the following case, which served to show me that the opinion therein advanced was not strictly tenable, but that cases may and do arise—rarely, I believe—in which it will be necessary to deviate from the rule laid down, and instead of the small and often repeated doses by inhalation of chloroform, so as to secure freedom from pain without deprivation of consciousness, a full and free use of the drug will be required to overcome the highly exalted state of the nervous system, and procure repose.

October 2nd, 1852. Mrs. —, aged 23 years, a thin, spare, delicate, highly nervous and excitable person, was taken in labour of her first child at 11 o'clock, P.M. The pains increased gradually for four hours, when the os uteri was nearly dilated, and the head of the child was well advanced through the cavity of the pelvis. She was very anxious to have the chloroform, and accordingly the inhaler was used in the manner so often described by me. She continued the use of the drug

^a Read before the Dublin Obstetrical Society.

for six hours without intermission, and without any signal benefit or relief. She seemed to suffer more pain than falls to the lot of the great majority of patients, and she was less influenced by the inhalation than I had ever witnessed. She dashed herself about with uncontrollable violence, and notwithstanding she had inhaled fully four ounces of chloroform in six hours, given through the inhaler, she resisted its anæsthetic influence. At this juncture I saw that my usual mode of administration would not do, and that something more decisive must be resorted to. The pains were violent; the head had just come to press on the perineum; the prospect of delivery in a short time was but faint; I therefore determined to get her at once completely under the full action of chloroform. With this view, I placed a piece of sponge in the bottom of a tumbler, and, having moistened it with the drug, I applied the mouth of the glass over the mouth and nose. Her violence was soon subdued, and she fell into sleep, in which condition I kept her for four hours, during which the pains continued with equal violence as before. At the end of that time, finding the head had not made advance through the pelvis, I had recourse to the forceps, and delivered a very large living boy. I was struck with the rapidity with which this lady recovered consciousness after the chloroform was withdrawn from her. In a quarter of an hour after the child was born, she was the only person in the house who could remember the name of the woman who had been engaged to nurse the child, and where she lived. This showed that her sensorium was not materially or permanently affected by the enormous amount (6 oz.) of chloroform she had employed during ten hours of her labour.

I have since met with two or three patients whose tolerance of chloroform was nearly equal to that just described, but none to come up to it.

The following case exhibits in a striking manner the value of chloroform in one of the most perilous conditions attendant on parturition, namely, *puerperal convulsions*:—

September 29th, 1852. Whilst still in the house of a patient who had been just delivered of her first child, after using chloroform for eight hours, I was summoned to a lady residing ten miles from Dublin, whom I had attended at the birth of three children while she had lived in town, but on this occasion, having made up her mind to remain in the country, she had placed herself under the care of a gentleman in her neighbourhood. I reached the house at four o'clock, P.M., and as I entered her room she was seized with a most violent convulsion.

Immediately I opened a vein in the arm, and took upwards of twenty ounces of blood. The convulsion subsided, but she did not recover consciousness. I was struck by the extraordinary extent to which her limbs and face were swollen, and I now learned from the gentleman in attendance that she had suffered during the last two months from a gradually increasing swelling of the legs and feet, which finally reached the thighs and upper extremities, and face. She had taken labour early in the morning, and was delivered about twelve o'clock of a very deformed child that did not live. Very soon after the expulsion of the child she complained of pain and swimming in her head, and became confused in her ideas and speech. It was on the occurrence of these symptoms I was sent for. No convulsion had taken place before the one I witnessed, but the threatening symptoms had never subsided from the commencement. As she did not recover after the bleeding, I expected she would not be long without another attack of convulsion. In this I was not disappointed, for in about a quarter of an hour she was again seized, and again I drew a similar quantity of blood from the arm. The hair was cut off, cold was applied to the head; still there was no sign of any return to consciousness on the subsidence of the fit. Tartar emetic in large doses was with difficulty got into the stomach. In less than half an hour another violent fit supervened. Her state was now one of great danger. Bleeding could not be carried any farther. The pulse was small, fast, and feeble. Chloroform appeared to hold out the only hope for her. I at once commenced its use, with most decided effect upon the convulsion. It subsided more rapidly than either of the others had done, she slept more naturally after it was over, and seemed rather less stupid when the sleep ended. Nothing like consciousness, however, appeared. I sat by the bedside and watched the advent of another fit, which being perceived I applied the chloroform and cut it short. This occurred several times, with intervals gradually prolonged between the attacks. At the end of two or three hours she opened her eyes and looked about her, though still quite unconscious and unable to answer questions. From the state of stupor she gradually passed to a condition of mania, like what I had before seen in patients recovering from severe convulsions. She sat up in bed, endeavoured to get out of it, and knew nobody around her. In this state the chloroform was of the highest benefit, for by its use she was speedily calmed down, and having kept her under its influence she soon fell off asleep. Whenever she awoke and showed signs of similar violence, the same remedy was at hand to tranquillize her; and in this manner she

was kept under the effects of the drug for twelve hours: at the end of that time she was able to recognise her friends about her, and she slowly but completely recovered.

I am not aware that the powerful agent, for which we are indebted to Dr. Simpson, has been used by any one in cases of *uterine hemorrhage*; and from the imperfect knowledge hitherto attained of the truly wonderful properties of this medicine, it is not surprising that its application to such cases should have been looked upon as inadmissible by even its most warm supporters. In the case I am about to relate, I was, I may say, compelled to resort to chloroform for assistance, and I am happy to say I did not call in vain. The success was so striking, the result so gratifying, that I did not hesitate to employ it in another and similar case, which occurred since I commenced to put these observations together for publication.

February 14, 1853. I was brought five miles from Dublin to attend a lady who had been under my care in three former confinements while she resided in the city. On my arrival I found the head just passing through the vulva, the labour having been short and easy. The child was soon expelled, and before the placenta came away a very profuse hemorrhage took place.

A drachm of ergot of rye was now administered, pressure, &c., of course, was attended to, and the placenta, being found in the vagina, was removed. The hemorrhage continued with great rapidity, notwithstanding very good contraction of the uterus. Vinegar and water, freely applied, seemed unavailing. The ground was covered with snow at the time. I ordered a bucketfull to be brought up to the room, and making up balls I passed them into the vagina, and heaped the hips and abdomen with the snow. By these means the hemorrhage was at last arrested, but the patient, a very small, slender woman, was reduced to a very low ebb indeed. The pulse was nearly imperceptible, the breathing distressed and gasping, and the formidable complaint of noises in the ears was urgently made. Fifty drops of laudanum in brandy were given, and in a quarter of an hour, the symptoms growing worse, seventy drops more and large quantities of the brandy were taken. Great exhaustion, great nervous excitement, great desire for sleep, harassed the patient. Repose was indispensable to her safety; opium did not procure it; time was of consequence. It occurred to me that if I could tranquillize the nervous system for even a short time, the opium she had taken would come into play and continue the narcotic influence so essential to her life.

I fortunately had my chloroform with me, and as she lay tossing from side to side and calling for air, I applied the chloroform to her nose. She soon became more calm, by degrees the jactitation ceased; she assumed a more composed attitude; and, to my great delight, sleep, quiet and natural, soon came over her. Hot jars were placed to her legs and feet, and finding the sleep so natural, I held the instrument with the chloroform at a distance from her mouth, so as to keep up the action in a faint degree. It was most interesting, and, as may be well imagined, very exciting, to watch the state of the pulse during this time. I was too far off to get any assistance. I had tried an experiment with a powerful agent, but my firm belief was that the new medicine would save her life. With the finger on the pulse while she slept, I waited for the returning wave, sometimes imagining the impulse was greater, again finding it feeble as before. But it did increase in strength, and before she had slept half an hour there was a manifest improvement in the beat. The feet were kept warm, and the sleep was kept up for two hours, at the end of which time she awoke most miraculously refreshed. In fact I never saw any patient so thoroughly recovered at the end of twenty-four hours as this lady was at the end of two. She rapidly returned to perfect health.

Encouraged by the marked benefit derived from the administration of chloroform in this hitherto forbidden kind of case, I was led to employ it under similar circumstances on the 8th of the present month (March).

A lady was delivered of her third child after a natural easy labour, and as soon as the placenta came away a great rush of hemorrhage followed, which continued with great violence for an hour. Ergot and the usual means succeeded in arresting the flow of blood, but she was left in a very exhausted condition. Absence of pulse, prostration, sighing, jactitation, &c. were prominent. Laudanum in doses of fifty drops, repeated in ten minutes, and brandy freely given, failed to procure rest. Indeed the opium seemed rather to prevent sleep. I now placed a piece of sponge in the bottom of a conical shaped wine-glass, and having moistened it with chloroform, I held the glass over the mouth and nose of the patient. The medicine did not fail to produce its usual soothing effect. Soon the nervous excitement passed away, by degrees the eyelids closed, and healthy natural sleep was induced. This was maintained for two hours, during which the warmth of the body returned, the pulse returned at the wrist and slowly regained strength, and at the end of the time when she awoke she said she felt perfectly well and happy.

She described the first effects of the chloroform as being most delightful. The peace of mind and soothing of the whole nervous system produced by it, she declared resembled a foretaste of heaven.

My attention was attracted on reading, in the Dublin Medical Press of January 14, 1854, the report of the meeting of the Royal Medical Chirurgical Society, held on the 18th of December, 1853, when Dr. R. Lee read a paper purporting to contain an account of certain cases of parturition in which chloroform was inhaled with pernicious effect. The report in the Medical Press corresponds with that given in the Lancet of December 24, 1853; and as no attempt has been made to contradict the truth of these reports, I am justified in supposing them to be correct. When a man is arraigned for libel in a court of justice, it is usual to read the article for which he is accused, and with your permission I will imitate that example and read the offensive document in question:—

“In these seventeen cases the author traced a series of injurious consequences to the employment of chloroform during labour. Thus, in Cases I. and II., the contractions of the uterus were arrested by the chloroform, and delivery was completed by craniotomy. In Cases III., IV., V., X., XIV., XV., and XVI., insanity and great disturbance of the brain followed its use. The necessity for delivery by the forceps was attributed to its employment in Cases VI., VIII., XI., XII., and XIII. Dangerous or fatal peritonitis or phlebitis ensued after the exhibition of chloroform in Cases VII., VIII., XI., and XIII. Epilepsy occurred in Case XIV.; and dangerous fits of syncope arose from its use in Case XVII. The reports of friends had confided many more analogous cases, and public rumour swelled the list still further, but he was desirous of confining attention to those which came directly under his own observation. He thought that a contemplation of the subtle action of this poison on the nervous system would have induced caution in its application to practice, but, on the contrary, the greatest levity had characterized its employment. Very soon after the discovery of its physiological effects, the author was astonished and confounded by the announcement of its application to midwifery; and it was not difficult for him to foresee that rashness, in its application and use, would lead to most deplorable results; and he regretted to find that in this he had not been mistaken. It was not wonderful that women doomed to bring forth their offspring in pain and sorrow should seek to escape from the troubles of our race by means of this treacherous gift of science; neither could we feel surprise that the in-

stances of women who were saved from the grievous pains of child-bearing, without bad consequences, should have for a time reduced to silence those unwelcome monitors who pointed to the possible evils of this new agent; but it did seem strange to the author that, amidst so wide-spread an experience as now existed of the noxious and dangerous effects of chloroform, it should be necessary for him to assemble the proofs of the havoc it had made. The two most serious effects produced by chloroform on women in labour were, a languid and deficient contraction of the uterus, and a greater susceptibility to the risks that arise from inflammation and fever. With regard to the first, the direct testimony of his own senses convinced him that the action of chloroform did very manifestly slacken the uterine contractions, and in some cases had put a stop to them altogether. Of the second class of effects, the risks of the puerperal condition were much complicated; for, to inflammation and fever must be added severe cerebral and nervous disorders. He had no doubt that the use of this noxious agent ought to be expelled from the practice of midwifery. In conclusion, the author observed that, though his opinions had been confirmed by conversation with the most discreet and experienced practitioners, yet he entertained grave doubts of the result of the present appeal to the good sense of the profession, when he considered the arts used to propagate a faith in this practice. It had become almost an extra-professional question. There was a systematic concealment of truth by physicians; appeals were made to the natural timidity of woman; and the most fallacious promises of perfect safety were boldly held out. Conceited or ignorant women of fashion made a pastime of this as of other quackeries, and the cause of science and humanity was placed in the hands of the most presumptuous and frivolous part of the community, while young and inexperienced mothers were decoyed to their destruction. If he had helped to rescue the medical profession from the dominion of a great and dangerous error, and had placed some restraint on an ignominious and disgraceful practice, the author would rest satisfied that this essay had not been written in vain."

As I have been amongst the earliest advocates in this country for the use of chloroform in parturition, and am, by daily experience, more and more thoroughly convinced of its immense advantages, I cannot suffer so gross an attack upon the characters of those who employ this agent to pass without making some observations on the subject, at this the first meeting of the Obstetrical Society which has taken place since I

read the report of the meeting of the Royal Medico-Chirurgical Society, at which the paper was read.

Two points are to be attended to in commenting upon this most extraordinary document:—1st. The cases by which the prejudice of the author is supposed to be bolstered up; and next, the offensive language in which sentiments and opinions equally offensive are expressed. Unfortunately, the cases have not been published, and, therefore, we are at a loss to know what value to place upon them; but, judging from the headings under which they are grouped in the published report, I think the reputation of chloroform in midwifery has little to apprehend from this attempt to extinguish it.

Thus we are told in Cases I. and II., the contractions of the uterus were arrested by the chloroform, and delivery was completed by craniotomy. Now we do not require any details to enable us to perceive the folly of adducing such cases as pernicious consequences of chloroform. Every one who has written on the use of chloroform in parturition has stated, that when given in large quantity, so as to cause insensibility, the effect, at first, is to arrest the action of the uterus; that, every one who has had real experience in the use of the drug, is well aware of, and cares little about: for he knows that in a very short time the action will return and go on as well as before. But he also knows, that if the agent is judiciously and cautiously employed in the manner I have advocated, so as to diminish sensibility to pain, without destroying consciousness, no such arrest of uterine contraction takes place, but, on the contrary, the fibres seem to act with increased vigour. But if, in these cases cited by Dr. Lee, the medicine had been used rashly and too freely at first, and a temporary suspension of uterine action had occurred, why they should eventuate in craniotomy does not appear. We all know that uterine contractions are often suspended naturally for hours in the middle of a labour, when no chloroform had been used; but that *alone* would never lead one to resort to craniotomy; there must be something else in the case, besides mere want of action in the uterus, to warrant such a proceeding; and so it must have been in these cases cited by Dr. Lee. Very likely the uterine action was interfered with by a precipitate employment of the drug; but it is also likely that the cases were such as would have required craniotomy equally, if chloroform had never been used; for I cannot for a moment imagine, that a physician of Dr. Lee's experience would resort to such an operation on the simple grounds of a temporary arrest of uterine action. In the

absence of details of these cases, we may safely put them down as *post hoc ergo propter hoc* cases, and class them among the absurd exaggerations (to use no more severe term), with which partisans so often attempt to mislead their hearers. If the cases ever occurred, they were bad cases requiring craniotomy, in which chloroform was used (perhaps rashly and unskilfully); and because the drug had been employed, the necessity for the extreme proceeding was attributed to it, when it might as well have been laid at the door of the cup of tea the patient had taken a week before. We have next seven cases in which insanity and great disturbance of the brain are stated to have followed the use of the drug.

In the absence of all clue to the nature of these cases, I can only observe, that when they are published the profession will have an opportunity of judging of their value; but, in the mean time, from a large experience in the use and effects of chloroform, I think it right to mention, that I have never met with a single instance of such results, and therefore must be excused for receiving with very great doubt any such assertion.

The necessity for delivery by the forceps was attributed to its employment in five cases. Why or wherefore does not yet appear; and I expect it will require some ingenuity to connect the effect with the supposed cause.

Dangerous or fatal peritonitis or phlebitis occurred in four cases after the exhibition of chloroform; and why should they not occur in those cases as well as in the thousands of cases in which they occur where no chloroform has been used? No one has ever said that patients who have used chloroform are to be exempt from the ordinary consequences of parturition; and unless it can be shown that a greater number of women are attacked by the diseases just mentioned, after the use of chloroform, than without it, it is absurd to adduce such instances as proofs of the "*pernicious effects*" of chloroform. One case of epilepsy, and one case of dangerous fits of syncope, make up the seventeen witnesses upon whose testimony this "treacherous gift of science," this "noxious agent, ought to be expelled from the practice of midwifery." It is no very uncommon occurrence, that an indiscreet and rash advocate should damage his cause by furnishing his antagonist with weapons calculated to defeat him. The animus of Dr. R. Lee can be gathered from the offensive sentiments expressed in the paper under consideration. It is quite plain that he exerted all his ingenuity, and adduced all the cases he could, to damage the reputation not only of chloroform, but of all who advocate its use; and yet, by this very effort, he furnishes them, on the very best

authority (that of a reckless and bitter opponent), with the grand fact, that he can adduce no instance in which a fatal result can be traced to the use of chloroform in midwifery. Where, in these seventeen cases, do we find those "most deplorable results," those "noxious and dangerous effects," that "havoc" attributed to this "treacherous gift of science"? Where, but in the brain of a partisan, willfully shutting his eyes to the wonderful and still undeveloped powers of a new agent, with which it is quite plain he is still unacquainted, and seems determined to remain so. Leaving such exaggerated epithets to find their value with all rational observers, I cannot conclude without indignantly repelling the language applied to myself and others who have used and recommended the use of chloroform:—"There is a systematic concealment of truth by physicians;" and again, "an ignominious and disgraceful practice." Now, freedom of discussion—freedom in the fullest sense of the word, in which it can be used in polite society—I advocate and admire; without such freedom we cannot expect to arrive at satisfactory conclusions in many points of practice; but the unwarrantable license of such expressions as I have just quoted must be condemned by all, as subversive of that decorum which should attend controversy among medical gentlemen; and must be characterized as an audacious libel by those implicated in the accusation.