

quires, cannot be conferred by any school or college, and is a man's best title to the admiration, gratitude, and support of the public.

Tonbridge Wells, June 12, 1841.

PUERPERAL CONVULSIONS.

ARTIFICIAL DELIVERY OF TWINS.

To the Editor of THE LANCET.

SIR:—If the following case of puerperal convulsions be considered worthy of introduction into the pages of your useful Journal, you will, by its insertion, oblige your most obedient servant,

EDWARD AUGUSTUS CORY, M.D., M.R.C.S.
Cannon-street-road, June, 1841.

A German woman, named Zimmerman, of a leucophlegmatic constitution, during the process of her second parturition was attacked with convulsions early in the morning of the 5th of June. She had been under the care of her midwife for some hours previously, and had complained during the preceding day of intense headach, for the relief of which her friends had very improperly recommended her copious potations of gin and water. On the supervention of the convulsive attacks, it was deemed expedient to procure the assistance of a medical practitioner, and Mr. Beale, surgeon, of Bedford-square East, was accordingly sent for, who immediately and very properly bled her to a considerable extent, and had also recourse to the usual secondary remedial agents. The os uteri at that time showed no signs of sufficient dilatation to permit the artificial evacuation of the uterine contents, and she almost immediately sunk into a state of complete coma. Mr. Farrer, surgeon, of the Commercial-road, had also very kindly lent his assistance. I was requested by the above gentlemen to see her about eight o'clock on the same morning. I found her in a state of complete insensibility, with no interval of consciousness; the breathing was stertorous, and the pulse so feeble and wiry as entirely to preclude any further depletion, which appeared to have been carried to its fullest extent. The os uteri was at this time dilated sufficiently to admit the careful application of the forceps, and I accomplished the delivery of the infant without difficulty. Another child was now detected in the uterus under head presentation, which I immediately delivered by the operation of turning. The uterus showed no disposition to contract after the expulsion of the children, but by the employment of compression externally, it contracted tolerably, and one large placenta was expelled. There was no hæmorrhage; both children were still-born. The woman died in about an hour after delivery.

Sectio-Cadaveris Twenty-four Hours after Death.

The dissection of the body was performed by Mr. Beale, assisted by Mr. Charles Bell, one of my pupils. On the removal of the dura mater, considerable vascular tumescence was observable on the surface of the left cerebral hemisphere, and some patches of imperfectly-formed lymph were also evident. The tunica arachnoides presented a remarkable degree of dryness. On the superior portion of the anterior lobe some extravasated blood was discovered, and, on extending the dissection, the left ventricle was found to be completely filled with a coagulum. The effused blood, when collected, weighed altogether about three ounces. The right hemisphere partook but slightly of the increased vascularity which had been observed on the opposite side, and was comparatively healthy throughout its whole structure. Nothing further of interest was noticed in the dissection of the brain. The intestines were much distended with foetid gas. The uterus and its appendages were in a healthy condition, and presented the appearances usually observed in a woman recently delivered.

Remarks.—The above is a case of the apoplectic form of puerperal convulsions, which may be considered the most fatal of all the varieties of that formidable and frightful affection. I think it may very reasonably be assumed, that if the patient, in the first instance, had been under the care of a medical practitioner instead of a midwife, her life might have been saved—I mean, that had she been copiously and repeatedly bled and purged on the accession of the intense headach, of which it will be recollected she complained on the preceding day, instead of having been plied with ardent spirits by her ignorant friends, the more formidable stage of the disease might have been effectually prevented. I do not intend to trespass on your valuable columns by detailing the symptoms and pathology of the disease under consideration, for they can be fully comprehended by a reference to any of the standard works on obstetric medicine: I shall merely observe, that some writers, among whom may be mentioned Baudelocque and others, have described several varieties of puerperal convulsion. I am, however, of opinion, that the division of Dewees into hysterical, epileptic, and apoplectic, is pathologically correct, and sufficient for ordinary practical purposes. It appears that primiparous women, and those having more than one child in utero, are the most liable to puerperal convulsions; and that these attacks are more common and dangerous during the parturition than at any period of utero-gestation or after delivery. Mauriceau had 42 cases of the above disease, of which 7 occurred during pregnancy, 3 of

which proved fatal; 19 during labour, of which 11 died; 16 after delivery, of which 5 died. *Merriman* cites 48 cases; 6 occurred after delivery, 3 during labour with twins, of which one died. The rest were attacked during labour, of which 11 were delivered by the forceps; 9 by cephalotomy, of which 2 died; 4 by version, of which 2 died; 1 died undelivered; 14 were delivered by the natural efforts, of which 5 died; of these, 36 were primiparous. At the *Maternité* of Paris, under the surveillance of *Madame Lachapelle*, in 15,652 women delivered there, 40 were the subjects of puerperal convulsions; 12 of these were delivered by the forceps, 5 by version; 23 of these cases occurred before delivery, of which 9 died. *M. Pacoud*, at the *Maternité* of Bourg, in 11,208 women, had 47 cases of this disease, 18 of which occurred during pregnancy, 20 during labour, and 9 after delivery. The number of deaths is not stated in the report. *M. Desjardins* relates 7 cases, 5 of which happened during labour and 2 after delivery, all of which recovered. *M. Champion* had 10 cases, all of which were primiparous; 7 recovered, 3 died; 5 of the children were born alive. *Velpeau* gives us an account of 21 cases; 7 took place during pregnancy, of which 2 died; 5 during labour, of which 2 died; and 9 after delivery, of which 4 died. *Collins* records 19 cases, which occurred in the practice of Dr. Joseph Clark, of Dublin, of which 16 were first births. He also mentions 30 cases of his own, of which 29 were primiparous. *Dr. Ramsbotham, sen.*, mentions 22 cases, of which 15 were first births. Of 59 cases attended by *Dr. Ramsbotham, jun.*, 17 occurred before the commencement of labour, 28 during the process, and 14 after parturition. There were 3 cases of twins; 45 were first births; 13 of the women died. Of the children, 41 were expelled naturally by the head; 6 delivered by craniotomy; 6 by the forceps; 5 by turning; and 4 presented the breech. 23 of these only were born alive. The convulsions took place after delivery in 12 of these cases: one patient was attacked nine days after labour, another ten, and another seven. The treatment of puerperal convulsions can be comprised in a few words. Bleeding not to ounces, but to pounds, according to the state of the patient, and delivery as soon as it can be safely accomplished. The immense quantity of blood which may be taken in this disease with the most beneficial results, is truly astonishing. Active purgation, refrigeration of the head, counter-irritation, &c., may be regarded as useful, although of secondary importance. Opium is decidedly injurious in whatever form it may be administered, unless in the hysterical variety of the affection, where I should consider it of doubtful efficacy. Some observations appeared in a late number of *THE LANCET*, from the pen of my friend Dr. Maddock, of

Judd-street, Brunswick-square, in reference to a case of puerperal convulsions, which occurred in the practice of a provincial practitioner, in which he (Dr. M.) strenuously recommended the use of opiate injections; experience has taught me the utter uselessness, nay, danger, of all the preparations of opium in puerperal convulsions; and if any practitioner should be sceptical on this point, I recommend him to peruse the interesting cases detailed by Dewees, and other eminent authorities, in relation to this subject. The treatment of puerperal convulsions has been so graphically and impressively delineated by the late celebrated Gooch, that I cannot refrain on the present occasion from quoting his own words: "The remedies (says he) commonly recommended are antispasmodics, bleeding, and delivery; the first, general experience shows to be useless. Bleeding is, then, our sheet-anchor. Dr. Hamilton says, take away forty ounces at once, and if in two hours the patient is not satisfactorily better, take away forty ounces more. When I first heard Dr. Hamilton in his lectures deliver these instructions, I felt not a little astonished, but I can now conscientiously declare, that I have never had a patient die of puerperal convulsions where the disease had been thus boldly treated; those who have died have been bled with a sparing hand, and to an insufficient amount. A little woman, about 18 years of age, of a spare habit, was seized with pain in her head and trembling, on which she fell down senseless: I was sent for, and soon after my arrival she became convulsed. This was the first case of the kind I had ever seen; and though the patient was not of a plethoric habit, I bled her to the amount of twenty ounces; before the bleeding was stopped, she opened her eyes and the convulsions ceased. I ordered her head to be shaved, directed cold applications to the scalp, and prescribed some brisk aperient medicine. Notwithstanding the favourable impression produced by the bleeding, which was followed by the action of the purgative, in a short time the convulsions returned; the bandage slipped off, and she lost about eight ounces of blood. The husband tied up her arm, and in great haste ran for me without his hat, and with his hands covered with blood; I went immediately, and took away about twenty ounces of blood more, and the convulsions ceased, but still the patient remained insensible. At ten o'clock at night I went to see her again, and just before my arrival she had a convulsive fit more violent than any preceding one. She had since nine in the morning lost forty-eight ounces of blood, and I now again bled her to the amount of thirty ounces; the convulsions ceased; in the morning she was decidedly better; in the course of the day uterine pains came on, she was delivered of a dead child, and gradually recovered. Give me the lan-

cet, and deprive me of all other remedies, and I will do more good with it singly than with all others, deprived of this, put together."

OBSERVATIONS ON CASES OF DEATH
FROM
SWALLOWING BOILING WATER,
AND A
REMEDY PROPOSED
FOR THE
RELIEF OF SUCH PATIENTS.
By MALCOLM W. HILLES, Esq.

THE fatality which so frequently occurs to children from swallowing boiling, or at least heated water, has induced me to offer a few observations on these cases, and to propose a method which appears to me likely to relieve patients suffering from such an occurrence, until other means may be resorted to for their more permanent cure, or perhaps to prevent, even of itself, a fatal termination.

My attention has been more particularly directed to this subject from reading the details of a case brought, within these few days, to the Westminster Hospital, where, notwithstanding the care and attention bestowed on it, the patient died in a few hours.

In considering cases of this description, it is necessary that we should bear in mind the ages of the patients usually affected, as this exerts a material influence on the symptoms, the remedies to be used, and the ultimate termination. As they, almost always, are children of from three to four years old, it is evident that the delicate texture of the parts affected (at this early age) will be more seriously injured by the contact of the heated fluid than if this were applied to the adult tissues, and that consequently we are to expect from thence an intensity and rapidity of symptoms not to be met with under similar circumstances at the more advanced periods of life. To this we must add, as conducing to a fatal termination, the more serious impression made on young subjects by such injuries, from their generally delicate organisation, and the more particularly on their nervous system, so highly developed, and so peculiarly sensitive at the earlier periods of life.

When a child swallows, or attempts to swallow boiling water, the parts injured by the contact of the fluid are the mouth, fauces, throat, oesophagus, and stomach; where the fluid has been completely swallowed, this last organ must be partially injured; but when the completion of the act has been prevented, as it no doubt frequently is, by the pain produced on the contact of the heated fluid, or by the spasmodic contraction of the

injured parts, the stomach will altogether escape from injury, and the parts first mentioned only will be those acted on by the fluid.

This difference in the extent of the injury is necessarily productive of an important difference in the several features of the case.

Where the stomach escapes, there is no organ affected, a partial injury of which is rapidly destructive of life. To what, then, are we to attribute the fatality of these cases? At first view, we are likely to consider that the impression on the nervous system mainly contributes to a fatal termination. Now, although it cannot be denied that the impression made on the nervous system of the patient adds much to the serious nature of the case, and will therefore assist in producing a fatal termination, yet this will be found, on reflection, not to be of so great an extent, as, *per se*, to induce death, or even to add so much to the mechanical injury done to the other parts, as to render useless our attempts to preserve the life of the patient.

As, then, the impression made in these cases on the nervous system, and the mechanical injury of the parts affected are not sufficient to account for their usually fatal termination, we are constrained to seek out some other cause for such unfortunate results. This will be found in the impeded respiration which so rapidly succeeds, in all these cases, to the application of the heated fluid.

Although respiration soon becomes so difficult, the respiratory organs are generally unaffected by the direct application of the boiling water; it is contrary to all experience, and directly opposed to our knowledge of the physiology of these organs, to suppose that a single drop of the fluid makes its way into the larynx or trachea, the difficult respiration is produced more indirectly.

When boiling water is applied to the mucous membrane lining the mouth, throat, and fauces, the phenomena directly produced are precisely the same as those caused by the application of this fluid to any other part of the tegumentary membrane; the skin, for example: at first we have inflammation, which is rapidly followed by effusion into the sub-mucous cellular tissue, producing an oedematous state of the mucous membrane of the parts injured, which, together with the previously swollen condition of these caused by inflammation, produces a difficulty of respiration by the mechanical obstruction afforded to the free entrance of air into the upper opening of the trachea.

There can be no doubt that the inflammatory action *may spread* to the mucous membrane of the larynx and trachea, and there produce submucous infiltration, which will add to the difficulty of respiration, and, with the existing condition of the mouth and fauces, will induce a spasmodic constriction of the rima glottidis, increasing the difficult respiration, and bringing on a fatal issue; but the