

towards its outer aspect, the note was very tympanic. Here there evidently existed a considerable collection of fluid; and gurgling was easily produced by pressure. The skin in this position was œdematous; and the parts were very tender on pressure, and fuller than on the opposite side; and the tumour seemed to extend backwards towards the kidney.

To-day, I made a free puncture over the most fluctuating part of the swelling in the thigh (*i.e.*, about five inches and a half below the anterior superior spine) through the fascia lata; an escape of a large quantity of very fetid gas at once took place. This cavity, as explored by the finger, extended upwards towards the brim of the pelvis, apparently under Poupart's ligament. Fœtid pus and gas were ejected with some force when pressure was made on the swelling in the loins. Probably not less than a pint and a half of thin and abominably fetid pus was evacuated. The intra-abdominal tumour evidently emptied itself through the opening.

From the time of the evacuation, the man began to improve. He never passed any fecal matter by the wound, or other substance which might lead to a special diagnosis as to the cause of the abscess. The discharge for the first week was profuse. He was discharged from the hospital six weeks afterwards in good health.

He presented himself again at the hospital six months later, and was then in perfect health, and wholly free from abdominal symptoms.

## Original Communications.

### RARE CASES IN MIDWIFERY.

By EDWARD COPEMAN, M.D., Physician to the Norfolk and Norwich Hospital.

[Continued from page 650 of last volume.]

CASE XV. *Inflammation of the Brain: Fatal.* Mrs. —, aged 28 years, of delicate constitution, was confined on the 5th of February with her fifth child, having had four before at the rate of one a year. On the 10th she was so well that her surgeon paid his farewell visit. On the 12th she felt cold and poorly, and at night experienced severe pain in the head, which increased on the following day in spite of aperients and other treatment. She had once before felt the same kind of pain, in consequence of a severe fall upon the back of her head about two years ago. I was requested to see her in consultation on the 15th, and found her still complaining of severe pain, principally on the right side of the head, with difficult articulation and partial inability to open her eyes. She seemed to be getting comatose, although clear when roused. *Her pulse was only 80, and had not exceeded this during her attack.* The lochia were present and healthy, and there was no uterine nor abdominal tenderness. Her bowels had been well relieved; but she was frequently sick, and unable to take nourishment. The skin was moderately warm, but her feet were inclined to become cold. Respiration was easy and regular. She was getting worse every hour, and I thought her in a very unfavourable condition. The head was principally affected, and, I thought, primarily. We agreed to apply a few leeches to the right side of the head, followed by hot sponging. We gave calomel and Dover's powder internally, with a saline diaphoretic. A sinapism was applied to the epigastrium; hot bottles to the feet. Lime-water and milk were ordered to be given frequently if the sickness continued.

On the 23rd, I had a letter to the following effect from her medical attendant. "I am sorry to say our patient is dead. The leeches did their duty, and for a little while she seemed relieved, but relapsed into the same state.

At a little before 3 A.M., I was sent for again as she had become much worse. I found her perfectly unconscious, moaning occasionally, and almost constantly throwing the right arm and leg about, the left side having become paralysed; and from that time she could not take anything, but got gradually worse, and died at 9 P.M. on the 17th. I had a *post mortem* examination, and found the brain and its membranes extremely congested; there was a small amount of serum, and some pus in many of the sulci; that portion of the brain which corresponded with the right parietal eminence had a peculiarly hepatised appearance, and on slicing off a piece about two or three lines in thickness, I came upon that which had the appearance of an abscess, for the brain at this part for about six inches in circumference was of the consistence of thick cream. In the right hemisphere and posterior half of the left, there was no distinction between the white and grey matter. The lateral ventricles had a considerable quantity of serum slightly tinged with blood."

CASE XVI. *Inflammation of the Brain with Effusion.* (?) L. C., aged 28 years, delicate and subject to frequent headaches, was confined with her fourth child, rather prematurely she thought, on Monday the 7th of April, 1862, after an interval of three years since the birth of her last child. There was some doubt, however, as to the correctness of her calculation, and her brother thought she had gone her full time. Her labour was easy and of short duration; but the child was still-born, for which it was difficult to assign a sufficient cause, as it looked healthy and could not have been long dead. The funis was discoloured from commencing decomposition, as was also the fetal surface of the placenta; and the liquor amnii was turbid and discoloured; but no sign of decomposition was discoverable in the child. There was no hæmorrhage, and for a day or two she seemed to be going on well. Her medical attendant, however, noticed that she looked more flushed and exhausted after labour than could be accounted for by one so easy, and she had expressed several times before her confinement, a presentiment that she should not get well through it. On Wednesday, the 9th of April, her mother came to see her, and noticed a certain degree of excitement of manner, but thought she was doing well. She complained of feeling cold, and "shuddered" a little on Thursday; but there is no history of her having had any distinct rigor then or since. On Friday the 11th, a little before noon she complained of severe headache, and was sick. She referred the pain to the left ear and side of the head; this pain increased the following day, and mustard poultices were applied. On Sunday, she seemed a little better, but early on Monday morning the pain was so severe that Dr. —, applied six leeches to the left side of the head, and some evaporating lotion. He had before given her an aperient which had acted freely, and some effervescent citrate of ammonia, which relieved her sickness. I first saw her on the morning of Monday, the 14th, some time after the leeches had been applied, and she then said her head was relieved, but she was afraid to move it for fear of bringing back the pain. *Her pulse did not exceed 80:* she had vomited about three times since the attack; her tongue was moist but tawny and her breath smelt sour. The skin was warm; she had no fever. The feet were a little inclined to be cold, and hot bottles had been applied. There was slight tenderness on pressure over the uterine region, and the lochia and secretion of milk had stopped. The lochia ceased suddenly when this attack began, and her brother said he found the bed and napkins smelling offensively, as if from puerperal mischief, when he saw her on Saturday, and he ordered the vagina to be washed out. Turpentine stupes had been once or twice applied to the abdomen; but there was, at my visit, neither pain nor distention of this part, nor any offensive smell from the vagina. I examined the vagina and os uteri, but felt no unusual degree of heat, nor any-

thing wrong. Indeed, there was no very apparent puerperal mischief present, although the history of the sudden suppression of the lochia, some uterine tenderness, and offensive smell a day or two before, led me to think that her labour and its consequences must have been the exciting cause of the head symptoms. Some little time before her confinement she had a swollen face, and oedema of the hands, leading to the idea of uræmia; but the urine was of good specific gravity and contained no albumen: and during her pregnancy she had suffered at various times from severe headaches followed by somnolency for several hours and recovered after sleep. During my visit she was quite conscious, but indisposed to speak or move; she took mild nourishment now and then, and had a turpentine enema, to be followed by another in the evening.

I saw her again in the afternoon of the next day; her head symptoms had increased early in the morning and Dr. — had applied a blister to the nape. A turpentine enema in the morning had produced a good healthy relief from the bowels. She had very little sickness; her tongue was moist, she had less headache and intolerance of light and noise; the skin was comfortable; pulse generally 80, but had dropped down to 60 once in the morning. There was no uterine or abdominal affection to-day. We determined to dress the blister with mercurial ointment, and to give another turpentine enema at night. Before I left she told me she could not see so distinctly with her left eye as with her right; and, although conscious, she had difficulty in pronouncing or remembering names. Her respiration had been all along free and tranquil. She took no medicine except an occasional dose of her ammonia mixture.

The next day, Wednesday, the 16th, I saw her at 6 P.M. and found a strange mixture of better and worse in her symptoms. She had nearly lost the power of articulating words, did not readily put out her tongue when asked to do so, and was partially paralysed in the right hand; she had also occasional twitchings in the right shoulder and side of the neck lasting for a few minutes at a time; and yet she was quite conscious, raised herself in bed for the purpose of taking champagne and milk, (of which she had taken rather freely) placed herself in position for an enema, had lost her sickness, as well as her headache and intolerance of light and sound; had a good pulse at 80, a good relief from the bowels from another turpentine enema, and was generally throughout the day quiet and composed, sleeping comfortably at intervals, and asking for drink or rather making signs for it when she wished to have it. The blister had drawn well, and she was quite sensible of the pain it produced. The urine was healthy and passed without trouble, though not in large quantity. The skin was warm and gently perspiring; respiration tranquil.

When she was seen on Thursday, Feb. 17, at 6 A.M., she had had a quiet night, sleeping at intervals for nearly an hour at a time, then taking either milk, champagne, or toast and water, and sleeping again. She passed urine once during the night; was conscious when awake, and apparently free from pain. At about 3 A.M. she had rather more twitching of the right arm, which ceased after taking nourishment, and she soon went to sleep again. The pulse quickened a little about the same time, but was generally during the night a little under 80. The skin was slightly perspiring; no sickness. At 7 A.M., she complained of her left ear, the original seat of pain, and was relieved by hot sponging. Another turpentine injection was given at 8.30, when it was found that the lochia were reappearing more freely, and of quite a healthy character. She had had scarcely any convulsive movements in the right forearm since a little after 3 A.M., and none for more than two hours; indeed only once, about 6 A.M., when her husband went into the room, and she exhibited a little emotion on seeing him.

I saw her again at about 3.30 on Friday, the 18th,

having left early in the morning before, believing her to be on the whole improving. It appeared that in the afternoon, some hours after I left, she was attacked with a very serious convulsion which lasted twenty minutes, accompanied with great congestion and discoloration of the face. Her attendants all thought she was dying, but it passed off and she recovered her former appearance and general condition; but attacks of convulsion returned at intervals, although not so severely, and the recurrence of them becoming more frequent, I found on my arrival that all hope of recovery had fled.

She had an epileptiform convulsion soon after my arrival, and a second in less than a quarter of an hour. Between this and five o'clock she had several, and, after earnest consultation, taking into account that her mental perceptions appeared rather more perfect in spite of the convulsions, that she did not lose her warmth, that her skin was natural, and the pulse, although rather more frequent, not weaker, we determined to pursue the following treatment: chloroform was ordered to be administered during the convulsions; a turpentine enema to be given; and a drachm of laudanum to be injected into the rectum after the enema had come away, and repeated according to circumstances. Champagne and milk were given; the turpentine enema, containing half an ounce, was not more than half injected, as she began to force it away, and when it returned no motion came with it; then a drachm of tincture of opium was injected, and no convulsion ensued for a longer period than before. At 6.5, forty minims more were injected, and there was no convulsion until 7.5, and then one was cut short by chloroform. Then nearly two hours elapsed without another convulsion. A little before eight, she had another, which was stopped almost immediately by chloroform. At about ten she had a more severe one, none of us being with her to give chloroform. At 11.15, another was coming on; but chloroform prevented it; but this was followed by more exhaustion. Hitherto, she had taken wine and milk every now and then with evident relish; but now she refused it, as if too faint to trouble herself to take it. Her pulse was more frequent and feeble; and a general restlessness supervened, with expressions of pain and uneasiness, but we could scarcely make out where. After a short time this subsided, and she fell into a comfortable sleep, which continued until 12.30. At 1.15 A.M. (Saturday, 19th), she began to become a little restless; and I gave her a wineglass of milk, some jelly, and an enema containing a drachm of laudanum in an ounce and a half of gruel. At 2.20, she appeared to have pain in the lower part of the abdomen, as if wanting to pass urine. Warm fomentations relieved her; and then she took freely of jelly, and seemed inclined to sleep. At 5.30, she had had some refreshing sleep, and no return of convulsion; took some milk, and slept again. Between 8 and 9, she was quite awake, her right hand twitching occasionally. Countenance cheerful. She was more conscious, and had altogether a better aspect. She slept quietly and readily, but without being at all narcotised. During sleep the twitching ceased, and was now less constant when awake, and appeared to be limited almost to the hand, as at first. At about noon she took nourishment, and fell asleep in a few minutes; but she awoke soon after 2, more uneasy, and flushed. Pulse 84. At 3.10, she tried some beef-tea, and in a quarter of an hour had a fit which lasted five minutes, during which she appeared unconscious, and was afterwards very faint and exhausted. She had another opiate enema, and slept for an hour, when some noise in the street awakened her; but went to sleep again almost directly, and awoke at 7. She then took some champagne, and, with two short intervals, slept till 11, when she took some milk, a cup of tea, and a little bread and butter. She then slept till 2 A.M. (Sunday, 20th), and at intervals during the whole night, taking milk, bread and milk, and champagne occasionally.

At 3 p.m. I found her much improved; she had very much regained the power of speech, and could move the right arm; but the hand continued in a state of clonic spasm when awake, and was swollen and painful, requiring warm fomentations. She continued throughout the day to take the same kinds of nourishment, sleeping quietly in the intervals. She had a good night, but became restless at about 7 a.m. (Monday, 21st). Nevertheless, her mental powers were much improved, and there was less paralysis of the arm. I gave her another opiate enema, but it returned almost immediately. (She had not had one since 4 p.m. on Saturday.) She complained of the soreness of the blister, which was therefore dressed with cerate, instead of mercurial ointment. Pulse 80. She said she was hungry, and ate some bread and butter. She could put her tongue out quite straight, and speak almost naturally. Having had no relief from the bowels since Friday, we ordered a soap and water and castor oil enema to be administered after she had had another sleep; and I left her at 9 a.m.

On Tuesday, the 22nd, I heard she had passed another very good night, and continued to improve. After this, I received accounts varying in importance from day to day; sometimes of improvement; at other times, of return of headache; albumen was once more discovered in the urine; less urine was passed; the mind occasionally became restless; and the impression on the part of her own medical attendant, that the symptoms could only be satisfactorily explained by uræmic intoxication, was strengthened.

I was summoned again on Saturday, the 26th, at 2.30 a.m. She was then weak and exhausted, but clear about the head, and not, as far as I could see, materially worse. Her bowels did not act well; and she now refused the use of enemata. We ordered her a potash and rhubarb draught, and some citrate of quinine and iron. Subsequently to this, Dr. — applied a blister behind each ear, on account of the head becoming more painful; and some morphia was given at night with good effect. On testing the urine a day or two afterwards, no albumen could be found, and the specific gravity was natural. One day, after a very long sleep, she awoke much more cheerful, and expressed herself as feeling decidedly better. The quinine had been discontinued, and she took instead a mixture containing solution of acetate of ammonia and tincture of sesquichloride of iron, which agreed well. She could use her right hand a little; sit up in bed; take food well; and seemed steadily improving.

On May 8th, I received a report that all was going on favourably; that she had been in her drawing-room, sat in an easy chair, and helped herself to her dinner. Her mind was cheerful and collected. Pulse still feeble. The hand was gradually regaining power; bowels regular; urine healthy. The vision of the left eye was imperfect as to distant objects, which are seen double; but when they were brought near, she could see them distinctly.

On May 17th, I found her reclining on a sofa in her drawing-room, cheerful, free from pain, with appetite and strength returning, and paralysis gone. She still, however, complained of seeing double at a distance when using both eyes, although, with either eye alone, she saw a single object; proving that her double vision depended upon a want of consent between the two eyes on directing them to an object.

June 3rd. I called upon this lady to-day at her father's house in the country, and found her looking well and in all respects improved. She had recovered her proper visual power; her appetite was good; her pulse regular; her head quite clear. The only thing of which she complained was weakness in her right arm and hand, and slight numbness at the tips of the fingers; but even this seemed to be gradually getting better, and there appeared no reason why she should not also in these respects recover.

[To be continued.]

## HOW TO PREVENT CHLOROFORM ACCIDENTS.\*

By CHARLES KIDD, M.D., M.R.C.S.Eng.

THERE are few subjects at present of a more practical nature in general surgery and medicine than to ascertain the best mode of administration of chloroform, so as to avoid these melancholy and disastrous deaths that so often follow its use. As in the later treatment of pneumonia or hip-joint disease we have simplified our practice by removing certain coincidences and recognising them as coincidences, so in chloroform administration a new key has been furnished to the physiology of anæsthesia under that agent by recognising that the "cardiac syncope" of former years is a coincidence or *post mortem* change; and that the condition of the respiration under chloroform is far more important than the condition of the heart. It is of little advantage, or useless indeed, to strive to rouse up a flagging pulse but through the lungs and diaphragm; and we have lately found, in practice in hospitals, that this is satisfactorily effected, not by galvanism or such like to the cardiac nerves, as formerly recommended, but by alternating ether with chloroform, which acts as a new stimulus of some kind to the air-cells of the lungs, and to the curiously complex nerves of the larynx, which are associated with the phrenic and with the diaphragm.

There is much confusion existing in our standard books as to the nature of accidents from chloroform; more particularly, too, as to the *contraindications* to chloroform. This has been a work of time to correct, as they were at first imperfectly guessed at as belonging to disease of heart. Most unnecessary and damaging coroners' inquests have been held on bodies, on the assumption that a mere *post mortem* result in the heart should have been during life anticipated by the surgeon, when probably a simple emotion of the mind (fright or nervousness), causing simple syncope, led to the accident, without a trace of cardiac disease.

### SYNCOPE.

Foremost of the real contraindications, I think, is the nervous exhaustion which attends loss of food or delirium tremens. Here the patient, as in puerperal mania, should at least not have chloroform, except he shall have first obtained some natural sleep, with renewal of nervous energy in those parts of the nervous system connected with reflex and respiratory actions. Thus on a field of battle, as in America lately, one sees accidents from neglect of this.

Hysteric patients, or those subject to fainting fits, require great attention; and for opposite reasons. In hysteric patients, there is excess of irregular morbid nervous action, which requires a large quantity of chloroform, sometimes many ounces, to overcome it; but in patients subject to fainting fits, a few drops of chloroform may produce similar results. This form of exhaustion is not easy to describe, as it cannot be traced to the usual shock of enormous operations like ovariotomy, amputation of the thigh, etc.; for in these the law of tolerance is very marked. The state which comes perhaps nearest to it is the exhaustion of delirium tremens. This form of nervous debility, or cardiac apnoea, has been very correctly described by Dr. Richardson. We have, I think, to be cautious if the patient have at any time complained of a sense of sinking or exhaustion, pallor, sleeplessness, unsteadiness of faculties; or, if there have been a creeping, rising sensation, commencing about the heart. These, however, have nothing to do with Snow's cardiac syncope, which is another name for asphyxia. A very soft or intermittent pulse is always suspicious in these cases, or much spasm of the mus-

\* This paper was sent to the Association meeting in London, but not read *in extenso* for want of time.