

Two eminent French physiologists, MM. Gratiolet and Lemaire, have published a most interesting paper on the action of carbolic acid in arresting putrefaction; and they have made the important observation that, whilst it does not interfere with chemical fermentations, such as the conversion of amygdaline into hydruret of benzoile, and the conversion of myroic acid by myrosyne, it completely arrests all vegetable and animal fermentations which arise from cryptogamic life. They have also observed that when carbolic acid is mixed with the vaccine virus, it entirely prevents its peculiar action upon animal organization.

These valuable observations of MM. Gratiolet and Lemaire strongly impress me with the idea that the use of carbolic acid might prove of great advantage in the early stages of consumption, if applied in the following manner—viz., by making the patient frequently inhale the vapour of the acid by means of an inhaler containing some cotton-wool saturated with the acid so that the inspired air must pass through the wool. I would at the same time administer a teaspoonful of the aqueous solution mixed with two ounces of peppermint-water three times a day. I think also that the same treatment might be advantageously tried in cases of scarlatina and typhoid fever, with the addition of saturating the air of the chamber as far as possible with the vapour, by placing lint or wool steeped in carbolic acid in various parts of the room. I would also administer once a day an enema consisting of a weak solution of carbolic acid.

6. *A New Hæmostatic.*—Dr. JANSSENS has called the attention of the Brussels Medical Society to a new hæmostatic proposed by Professor Piazza, of Bologna. Repeated experiments have shown him that the alkaline chlorides render the clots formed by perchloride of iron much more compact, more homogeneous—in a word, more fibrinous. Hence M. Piazza has conceived the idea of mixing solutions of perchloride of iron and pure chloride of sodium, as in the following formula: Pure chloride of sodium, 15 grammes; neutral solution of perchloride of iron (30 degrees), 25 grammes; distilled water, 60 grammes. The chloride of sodium is dissolved in the water; the solution is then filtered, and the perchloride of iron is added. It is said that this hæmostatic has been successfully employed in St. John's Hospital at Brussels by MM. Rossignol and Janssens. It is not liable to produce violent local irritation, the perchloride of iron being diluted, while its efficiency is not impaired.—*Brit. Med. Journ.*, Sept. 19, 1863, from *Bull. Général de Thér.*, 15 Aug. 1863.

7. *The New Diuretic Wine of the Hôtel Dieu.*—M. TROUSSEAU, not satisfied with the existing diuretic wines, has taken considerable pains to frame a formula of one which furnishes good results. White wine, 750 parts, juniper berries, 50. digitalis leaves, 10, and squill, 5 parts. Macerate during four days, and add acetate of potash, 15 parts. Filter. Dose—two or three tablespoonfuls per diem.—*Bull. Gén. de Thérap.*, vol. lxiii.

8. *Local Employment of Bismuth with Glycerine.*—The sedative action of bismuth renders glycerine a very suitable associate. R.—Subnitrate of bismuth 1 to 3 parts, glycerine 3 parts. The bismuth in a state of impalpable powder is to be gradually incorporated with the glycerine. The mixture must be stirred up every time it is employed. When it is applied to the surface a pencil should be employed; but when it has to be introduced within any of the natural cavities, as the vagina or rectum, the finger or plugs of charpie should be used. M. Follin employs this mixture in equal parts at the Salpêtrière in certain diseases of the eye, as chronic granular conjunctivitis, ciliary and glandular blepharitis, etc. M. Debout has found the same preparation of use in eczema of the axillary, vulvar, or anal regions, as well as in chaps of the nipples, lips, and hands. M. Trousseau employs the same mixture, but with only one part of bismuth, in fissures of the anus, when these resist, rhatany injections.—*Ibid.*

9. *Anomalous Results of the Administration of Chloroform by Inhalation.* H. B. MONTGOMERY relates (*Madras Quarterly Journal Med. Sci.*, Oct. 1862), the following four cases in which he administered chloroform with very interesting anomalous results:—

CASE 1. In the year 1851 a young boy was admitted into Steevens' Hospital, Dublin, having received a severe injury of the leg necessitating amputation. The lad was put under the influence of chloroform by me and carried into the operating theatre in a state of apparently deep insensibility.

As the operation was proceeding I continued the influence of the chloroform by occasional small doses administered in the usual method.

As the patient had struggled a little at one period of the operation, his hands were held by the assistants; and I was compelled, being anxious to ascertain the condition of his pulse, to place my finger on his carotid artery. Immediately, the boy, who had apparently been quietly sleeping, opened his eyes and said in a gentle voice, "Don't put your hand on my throat, there is nothing the matter with it. Do you not see that they are setting my leg." At this time the bone was being divided; and during the subsequent taking up of the arteries he remained quiet with his eyes wide open, but without any symptom of *pain*.

The operation being concluded, the lad was removed to his cot in an adjacent ward, and I remained by his side, attending to the use of the proper restoratives, and after a few minutes he was quite conscious. He declared to me that he had felt no pain and had been utterly unaware of everything that had occurred; and yet, during the whole of a lengthened and painful operation he had not felt any single step of it; and, though fully observant of passing events, was entirely ignorant that his leg was being amputated. In this case clearly consciousness was retained and sensation was completely in abeyance.

But a much more striking case was the following in which the most serious symptoms were present for many hours and threatened to have a fatal termination.

CASE 2. *12th January 1857.*—Venkapah, male, aged 4 years, was admitted in the Honore Dispensary at 10 A. M. with several serious injuries, resulting from his arm having, on the previous evening, been entangled in a sugar mill.

The boy was weak and faint on admission, and the hand appeared to have a tendency to become gangrenous.

He quickly rallied after a stimulating draught, and was ordered to have a full opiate at bedtime as he was suffering great pain.¹

13th. Arm removed by single flap, scarcely two ounces of blood lost.

Chloroform was administered and rapidly took effect, and from this he apparently perfectly recovered. The arm was not immediately closed up but covered with damp cloth and left open, so that in case of hemorrhage the source of it might be readily detected; the boy was then left apparently comfortable, *though not speaking at all.*

Up to this point the case had done well, but very soon afterwards ill symptoms showed themselves. (The operation was probably concluded at about 7½ o'clock A. M.)

About ten minutes afterwards he became restless, and began moving about in bed, jerking his limbs up and down and from side to side. Crying out, apparently from pain, and then falling asleep for a few minutes, waking again, being restless, and falling asleep again. The whole of each series of these different stages taking place about every four minutes.

I was not made acquainted with these symptoms until 11 o'clock, or three hours after the operation. I immediately proceeded to see the child, and found him as described above; my opinion was that he had congestion of the brain from the effects of chloroform, and that if this was not removed he might die from inflammation. He had, I found, eaten nothing before or since the chloroform was administered. R.—Terebinth. ʒij, aqua ferventis ʒiv.—M. Ft. enema. Head to be shaved and cold lotion applied, and one leech to be applied to each temple, if convulsions do not cease after enema.

Enema operated well; one large worm passed (the presence of worms had been suspected by me, and hence I preferred the turpentine enema, otherwise I should have preferred a less exciting one), the fits however continued unaltered.

One leech applied to each temple.

¹ Operation was obliged to be deferred from yesterday in consequence of the wish of his friends who desired the presence of an absent relative.

The condition of the child before giving the enema was just as at present, viz., eyes staring and wild in expression during the convulsion, and *fixedly* closed during sleep. Pulse rather slow, but full and bounding; limbs constantly tossed about; head natural as to heat; heart's and lung's action as in health. The leeches drew blood well, and the bites were fomented with warm water to encourage bleeding. He seems a little more rational, refuses all food, and does not reply to questions.

5 o'clock. Seems somewhat easier. Cold lotion continued to the head without intermission. If he does not soon recover he is to have another leech upon each temple. Had a motion about a quarter of an hour ago, but otherwise no change. Another leech to each temple applied, and some thin congee to be given if he can be made to take it.

6 o'clock. Almost immediately after the application of the leeches he began to improve, the convulsions became much less frequent, and in the interval between them he was wakeful and sensible, recognizing his friends and speaking, *but not intelligibly*. He has now about five or six convulsions in the space of one hour.

8 o'clock P. M. Is now quite conscious, and speaks rationally. One of his first questions was an inquiry as to whether *his arm had been removed or not*—from this I infer that he was not conscious during the whole day, and that the congestion of the brain was set up at *the time of the operation*, notwithstanding the apparent recovery from the chloroform (administered 12 hours ago).

14th. The child took some congee at 12 o'clock midnight, and again at 2 A. M. 6 o'clock. Since 2 o'clock this morning the child has slept a good deal and with much benefit, but always, upon awakening, is *slightly convulsed*, but this passes away very quickly.

R.—To have a dose of oil; and, imperial to drink. Cold water dressing on the arm, to be kept wet until 2 o'clock, when the limb is to be dressed.

2 o'clock. Child quite recovered from the tendency to convulsions; is quite well; arm brought together and found to fit well; bowels twice moved since morning.

15th. After the arm was dressed yesterday the child fell into a profound sleep, and awoke in three hours much refreshed. The arm is not painful today, and the child perfectly well. To have some castor oil in the morning.

The subsequent history of the case is unimportant—the child did well and was discharged cured.

The results of chloroform inhalation in this case were singular, and to the best of my knowledge are unique. The amount of chloroform used was small and the recovery from it *apparently perfect*; yet, there is little doubt, to my mind, that during this time the boy was suffering from a congestion of the brain, the more decided symptoms of which did not come on for some hours afterwards. During the continuance of them, the indifference to pain and the entire unconsciousness and wildness of the child were more allied to that witnessed in mania than to any other condition. In mentioning *indifference to pain*, I allude to the manner in which he flung about the stump, although he gave expression to pain by his cries. Whatever be regarded as the pathology of this case (of which, fortunately, I had no opportunity of satisfying myself), I have no reason to regret its result as teaching a lesson which I think should be borne in mind by all, viz., *that apparent recovery from chloroform inhalation does not, of necessity, determine all chances of its injurious action*.

The other cases to which I purpose to refer were examples of a more usual form of affection, but one which overlooked might possibly end fatally.

CASE 3. Davee, æt. 25, female, was admitted into the Honore Dispensary on 1st of October, 1856, with fungus hæmatodes on the inner and posterior aspect of the right arm. Excision of the tumour was decided upon and performed on 6th idem; the usual precautions having been taken to prevent ill effects from chloroform. The tumour was found to have deeper attachments than were suspected, and its removal was consequently more tedious than I had anticipated.

Toward the close of the operation the face became livid, she breathed stertorously and with great difficulty. Ammonia, the free admission of air, small

doses of brandy and ammonia, were had recourse to, and the woman recovered, but she did so very slowly.

In this case the operation was fortunately nearly at a close before the ill effects of chloroform became apparent, but they did so with extraordinary rapidity. Not half a minute elapsed from the first symptoms of these ill effects until the woman appeared at the point of death.

In this case the patient was not removed from the operation table for three hours after the chloroform had been given.

She subsequently did well, and was discharged cured.

CASE 4. In the autumn of 1860, I had occasion to operate on a patient suffering from elephantiasis scroti; his heart was *apparently* sound and his general health pretty good. He came under the influence of chloroform (administered at his own request) readily, or to speak more correctly *was coming* under it, when his pulse rapidly failed and he appeared likely to sink; yet neither lividity of the face occurred nor any difficulty of breathing. Restoratives of the usual kind were employed, and he recovered satisfactorily.

Operation was of course postponed, and was subsequently performed without the aid of chloroform. I do not dwell upon this case further than to impress upon the reader the importance of great care in the use of chloroform in operations for this disease. For, in the great majority of instances, there is, or appears to be, fatty degeneration of the heart. I have myself operated upon three cases of this kind in which this disease was probably present: but in two of which I administered chloroform—and I have seen three other cases in the practice of friends Drs. Van Someren and Paul—and in all of them (with one exception) was the inhalation of chloroform attended with considerable risk. However, I am happy to add that no ill effects followed its use. As these cases are to appear in an early number of this journal, I need not now do more than allude to them as bearing upon the practical caution I have above given, and of which I was recently reminded when examining a case upon which I hope to operate in a few days.

As regards the use of chloroform in all cases the conclusions will be apparent; but I may briefly note the points which seem to be proved by the foregoing examples.

1. That loss of consciousness is not essential to loss of sensation.
2. That apparent recovery, at the time, does not prevent the possibility of cerebral disturbance having been set up.
3. That the drug may be continued without ill effects for a long time, and yet *suddenly* induce dangerous symptoms.
4. That, in certain diseases, chloroform must be administered with especial care even though the heart may *appear* to be sound.

10. *Sulphate of Copper in Pencils.*—The frequent employment of sulphate of copper as a caustic, and the inconvenient form of its crystals when used for this purpose, has suggested to a Spanish pharmacist, Don Mariano Llovet, to fuse it in pencils like nitrate of silver. The rapidity with which it loses its water of crystallization interferes with changes in its form; it therefore requires to be mixed with some other substances which, producing no change in its caustic properties, allows it to take the desired shape. M. Llovet therefore used sulphate of alumina and potass (ordinary potass alum); mixing one part by weight of this salt with two of sulphate of copper. The two salts are powdered and placed in a clay or porcelain vessel over a spirit-lamp or any other sufficient source of heat, so as to be gradually melted together. The mass, when melted, is poured into a mould, which should be of bronze, so as to prevent the precipitation of metallic copper. The pencils obtained are of a clear bluish-green colour both internally and externally, and offer some resistance to breaking. The caustic property of the sulphate of copper remains unimpaired. —*Brit. Med. Journ.*, Sept. 12, 1863, from *Gaz. des Hôp.*, 28 July, 1863.