

and corrosive sublimate this transformation of part of the arsenicous into arsenic acid.

Ammonia causes, with this mixed solution, a white precipitate. A slip of copper and the minute galvanic pile, composed of a slip of gold, and a leaf of tin rolled into a spiral, produce with the mixture the same effect as with pure corrosive sublimate.

*Concentrated Solutions.*—Three volumes of Sublimate and one of Arsenicous Acid.

Sulphuretted hydrogen furnishes a very dirty yellow precipitate, in the midst of which is almost instantaneously deposited some black sulphuret of mercury; ammoniacal sulphate of copper, a greenish yellow; neutral nitrate of silver, a white, very slightly yellow; ammonia a white ditto, soluble in excess of alkali; copper and electric pile act as with pure corrosive sublimate.

*Concentrated Solutions of three vols. Arsenicous Acid and one of Corrosive Sublimate.*

Sulphuretted hydrogen, a yellow precipitate speckled with black dots. Ammoniacal sulphate of copper and nitrate of silver, as before described, except that the green and yellow shades are more decided. Potassa acts as with solutions of equal parts of sublimate and arsenicous acid. Ammonia gives a white precipitate, soluble in excess of alkali. Copper and the electric circle act as on sublimate alone.

*Analysis.*—In the fifth volume of the "Archives Générales de Médecine," a case is recorded by M. Julié Fontanelle, in which an apothecary's apprentice swallowed a drachm of corrosive sublimate, mixed with three of arsenicous acid. Sublimate will be easily separated from arsenic by treating the powder by cold sulphuric ether, and agitating the mixture from time to time in a phial with a ground stopper. The sublimate alone is dissolved. The same remarks apply to the aqueous solution as to the powder.

(To be continued.)

#### FURTHER RESULTS OF

#### DR. AYRE'S TREATMENT OF MALIGNANT CHOLERA

BY SMALL AND REPEATED DOSES OF

#### CALOMEL.

To the Editor of THE LANCET.

SIR,—Having been applied to by several correspondents for information as to my further experience in the treatment of cholera by small doses of calomel, frequently repeated, and the results of it, I beg leave, in anticipation of such inquiries, to give through your journal a summary account of both.

Since the date of my last communication

of the 28th of June, and published in your journal of the 14th ult, I have had ninety-nine additional cases, making the whole number 175. Of the first series of 76 cases, ten died; of the last series of 99 cases, 20 have died, making the whole number of deaths thirty. Of the 20 cases which terminated fatally, it is right to add, that seven of the patients were dying when I saw them, and for whom therefore I did not prescribe; and an eighth patient was lost by the nurse getting (drunk?)\* and wholly neglecting to give the medicines. The twelve fatal cases which I did prescribe for, were all subjected to circumstances which might have been obviated, and which, as originating in the prejudices or poverty of the patients or their friends, would be guarded against by persons in a better class of life. And it is necessary to notice these circumstances; for in estimating the merit of any given mode of treatment, they must be taken into account; for other things being equal, treatment that proves beneficial, or appears to do so, to one patient in this disease, should be so in another, and if it be otherwise, it must be owing either to something essentially wrong in that treatment, or to causes which are foreign to it and control it.

In my former letter already referred to, I noticed the causes which influenced the issue of the ten fatal cases, and I shall now do the same with respect to those which occasioned in the twelve the same result.

Of these patients, the first two were a man and his wife. The man, who was about fifty years of age, and was first attacked, had long been of drunken habits, and latterly very destitute. He was pulseless when first seen, but recovered from this state, and struggled on to the sixth day, when he died. His wife, who watched him through several nights, became exhausted by fatigue, and grief, and want, and being seized by the disease, was taken to a hospital (but through mistake to a wrong one), and, losing sight of her for several hours, I found her in a state of irretrievable collapse.

The third case was that of a poor woman, residing, at the time, alone, who, having been seized with the disease in the night, kept her door locked, that her neighbours might not gain access to her and discover her state, as she was reluctant to have any advice. She was pulseless and nearly dying when I saw her.

The fourth case was a very dissolute woman, who was drunk and fighting on the evening preceding the night of her attack, and was twelve hours in collapse before I saw her.

\* Our correspondent has here left out a word.—  
ED. L.

The fifth and sixth cases were aged men, who were seized early in the night, and for whom no assistance was sought until the morning.

The seventh patient was a young woman who, after recovering from a most severe attack of the disease, relapsed into it from eating too hearty a supper at the house of a neighbour, and who sank at the end of a fortnight, from exhaustion caused by a miscarriage, which the second attack of the disease had induced.

The eighth case was a watchman, whom I was requested by Mr. Sharpe to see with him. He was brought out of the collapse, and appeared during several days to be recovering, when, unknown to us, he had ginger beer and other improper things given to him, and he died from an inflammation in the mucous lining of the first passages.

The ninth case was a young married woman, who, after exerting herself with great humanity and activity in her gratuitous aid to the very numerous sick of her neighbourhood, became herself the subject of the disease, and at length the victim of it. I saw her early in it, and she had become convalescent; when, being hungry, and having no other food, she ate the half of a flour-and-water dumpling, relapsed in the night, and in the morning when I was called to her, she was pulseless and dying.

The tenth case was a poor stranger, who had been many days almost without food, and who worked through a whole day in a hay-field with the disease upon him, and was brought home in the evening pulseless.

The eleventh case was a child three years of age, who had nearly recovered after being in a state of extreme collapse, when all her attendants became ill, and incapable of duly attending to her, when an affection of the head came on, which speedily terminated in effusion.

The twelfth case was the grandfather of the above, who, with his wife and daughter, became affected with the premonitory symptoms, and who, from my omitting to join calomel with the other preventive means, fell into the true disease in the night, and in the morning at my visit he was dying. The wife and daughter by the calomel treatment were secured from its further progress, or perhaps, to speak more correctly, they were relieved from a mild and incipient attack, which indeed was the case with a great number whom I prescribed for, and whom I did not report to the Board of Health.

Such, then, are the cases which I have lost, and which differ in nothing from a very large proportion of those which have recovered under the treatment I recommend, excepting in the extrinsic circumstances which I have detailed. All the patients

had passed into the stage of collapse, and many had been in it several hours before I was called to attend them. A few only had passed through it into the consecutive stage, and these were of the milder form, and chiefly of late occurrence, and in whom the cramps were principally confined to the abdominal muscles, and the dejections tarlike, with pain on pressure in the *epigastrium*, or about the head, with the other symptoms of that state.

In regard to the treatment, the same methods, precisely, have been pursued in the last series of cases as were described and recommended in the treatment of the former ones. The calomel has been given nearly uniformly in single grain doses, made into exceedingly minute pills, with bread crumb rubbed down into a mucilage, and mixed with a little gum, and given with one drop of laudanum in a teaspoonful of water every five or seven minutes, for one, two, or three hours, or longer, as the urgency of the case demanded, widening the intervals of giving them as the urgent symptoms subsided, and discontinuing the laudanum. No other limit was found necessary to be set to the quantity of calomel given, than that which the circumstances of the disease imposed, nor was any fear entertained that the medicine would affect the mouth; for pending the duration of the collapse, no absorption of the medicine will take place. By one patient, a young woman (Rosanna Curry), whom I had a few days ago in the hospital, and who had been, some time before I saw her, in the stage of collapse in its most malignant form, no less a number than 300 grains of calomel were taken, and two-thirds of them retained; and who, notwithstanding the extreme severity and obstinacy of her disease, and the quantity of calomel taken, was well, and discharged from the hospital, in less than ten days, and without any material soreness of the mouth.

In my former letters I dwelt upon the necessity of resorting early to the antiphlogistic treatment upon the passing away of the stage of collapse, grounding my belief of its importance on the theoretical view I took of the nature of the disease. My experience since, in the disease itself, has fully confirmed the view I took of it. Early leeching of the *epigastrium* on the first rise of the pulse beyond its natural standard, is always to be effected, if possible, and leeches should always be left in the evening with the attendants, to be applied in the night, if necessary, that no time may be needlessly lost. Of not less importance is care in the choice of the food for the patient. Rice appears most suitable with thin broth, and bread and flour, meat, and all acids, most injurious; wine is rarely required. The patients often desire to have it, and in the

early cases of the disease I granted it to relieve their weakness after they appeared to have got through it, but I am now convinced that it was injurious to many, and I doubt if it was beneficial to any; and latterly I have never allowed it.

In conclusion I have only to add, for the information of those who may hereafter have to treat the disease (for those who have seen it cannot want the information), that in the treatment of the disease, and to render that treatment efficient, it is necessary to submit to the toil of almost hourly visits to the patients; for such is the imminent character of the disease, and the extraordinary rapidity of its course, that the slightest intermission of the treatment may prove an irretrievable loss to the patient; and indeed his imminent danger is akin to the condition of a drowning man, and the obligation of the practitioner is scarcely less than that man who holds within his hand the means that are to rescue him. I am respectfully yours, &c.,

JOSEPH AYRE.

Hull, Aug. 11, 1832.

CASE OF  
TIC DOLOUREUX.

By W. DOBSON, Esq., Surgeon, Pimlico.

Mr. P—, ætat. 65, a tall plethoric man, had enjoyed uninterrupted good health until about nine years ago, when he was attacked by tic doloureux in the right side of the face. He attributed the accession of this malady to adverse domestic circumstances. The affection has progressively increased, both in the intensity of the paroxysms and the frequency of their occurrence. Numerous remedies had been employed, and various plans of treatment adopted, but all equally unsuccessful.

All the pathognomonic symptoms existed, and as violent as imagination could conceive them. The ordinary excitants were, eating, drinking, speaking, and touching the parts. The pain resided in both maxillary nerves, but especially in the superior, the whole cheek exceedingly sensible when touched, particularly around the emergence of the superior maxillary nerve, from the foramen infra orbitarium. During the most urgent paroxysm no discoloration of the integuments was perceptible. The muscles of that side were flaccid, and the cheek more prominent than the other. Restless nights from pain; intense mental anxiety; torpid bowels, defective appetite, and all the phenomena exhibitiv of severe alimentary disturbance. After the intestinal canal

had been regulated by aperients, carbonas ferri, in doses of from ʒij to ʒvj, were exhibited three or four times a day, and hydrarg. submur. gr. ij sing. noct., until the mouth became slightly affected. Still, after the elapse of some weeks no relief was obtained. Various remedies were subsequently used, ex. gr. quinine, carb. ammoniæ, camphor, opium, hyosciamus, ext. humuli, and ext. belladonna, applied extensively to the pained parts, in short, every antispasmodic and narcotic medicine was prescribed, without either removing the disease or alleviating its severity. Liq. arsenicalis was now commenced with, and with a full determination to give it a fair trial, by pushing it as far as the system would permit, beginning with the dose ℥v, and increasing it to ℥xxxv ter die, at the expiration of which time decided benefit was obtained; the paroxysms were less frequent, of shorter duration, and less violent; but the medicine was obliged to be discontinued in consequence of the accession of gastric irritation—muscular tremors and twitchings. Gentle aperients were in the mean time administered. In a few days the arsenical solution was resumed, commencing with only ℥x ter die, and gradually increased. In six weeks from the commencement of giving this medicine every symptom decidedly mitigated, and in two months had entirely vanished. It is now three months since the drawing up of this case, and as there has been no return of the disease, we may presume that it is eradicated, and by the agency of arsenic.

August 6th, 1832.

EFFICACY OF THE PLUG IN  
UTERINE HEMORRHAGE.

To the Editor of THE LANCET.

SIR,—July 2nd, I was called to see Mrs. Merser at Queenborough, who was at her full time of pregnancy, and expecting every day to be confined, when I found her labouring under hemorrhage to an inordinate degree, which had been the case for four days antecedent. She has had four children before, with no extraordinary circumstance attending the delivery of them; but on this occasion received news which greatly alarmed her, and caused her to jump off a place some few feet from the ground, when something tore from her side, according to her description. Upon examination per vaginam, I found the orificium uteri dilated to the size of half-a-crown: no pains, but a protrusion of a detached portion of the