

ation of the skin; debility intense. *Sp. ammon. arom.* was given frequently.

The patient was seen every two hours during the day, and a gradual amendment was observable each time.

At ten p.m. Pulse 80 and small; surface much warmer; complains of irritation of the skin from the turpentine; *cal. gr. x* with *opii gr. j* every three hours; farinaceous substances, with small quantities of brandy, to be taken frequently during the night.

3. In a favourable state; pulse much improved; slight ptyalism; surface warm; thirst, with dry tongue; bowels relaxed; evacuations bilious; powders to be omitted. Ordered a cretaceous mixture.

4. Mouth fully affected with the mercury; great debility; quinine and port wine every four hours. Avoiding too much excitement.

5. Decidedly better. 6. Nearly convalescent. 8. Recovered, with the exception of soreness of the mouth.

MALIGNANT CHOLERA.

SANITARY REGULATIONS

ISSUED BY THE

GOVERNMENT BOARD OF HEALTH,

In August, 1832.

(CIRCULAR.)—The CENTRAL BOARD OF HEALTH have deemed it advisable to re-issue the sanitary circulars relating to spasmodic cholera, dated respectively 14th November, 13th December 1831, and 9th May 1832, with the following alterations and additions, which in their opinion have been rendered necessary by the presence and gradual spread of the disease in this country since October last.

Council-office, Whitehall,

Aug. 9th, 1832.

PUBLIC PRECAUTIONARY MEASURES.

1. In order to ensure the adoption and realize the benefit of any system of sanitary arrangements in a large community, the first essential point is to divide that community into subordinate sections, and to form local Boards of Health; each board to consist, if possible, of one or more resident magistrates and clergymen, and parish authorities, a certain number of substantial householders, of one or more medical men, and an efficient secretary.*

2. These Boards should appoint district inspectors to visit daily, and report upon such deficiencies as may be found to exist in the following primary elements of public health; viz. the food, clothing, and bedding of the poor, the ventilation of their dwellings, space, means of cleanliness, their habits as to temperance,—prevention of panic.

3. It would be most desirable that flannel clothing, at least flannel belts and woollen stockings, should be distributed, and an improved diet afforded, to those who may be found most in need of such supplies, and who are generally the first attacked in all communities; in order that they may the better resist infection, and be enabled to oppose improved strength and more comfortable feelings to the influence of the disease, should they be attacked.

4. The subordinate divisions of districts ought to be numbered or lettered, and the names of the medical men attached to, and the visiting inspectors employed in, each division and district, should be placarded in conspicuous places.

5. Efficient arrangements should be made by the local Boards of Health or other authorities to obtain the earliest and most correct intelligence of every case of cholera which may occur within their jurisdiction, and to report the same to the Central Board in London.

6. All unnecessary communication should be avoided as far as possible between the infected and the healthy; and as space, cleanliness, and pure air, are of the most vital consequence, both to the recovery of the sick person and to the safety of those about him, the patient labouring under spasmodic cholera should either be placed in a separate, well-ventilated apartment of his own house, if it afford such accommodation, and be attended by as few persons as the circumstances of his case will admit, or be induced to consent to an immediate removal to the temporary hospital; or the healthy members of the family should be removed to such building as may have been provided for the reception of persons whose circumstances will not afford the advantages at home, of space, air, and separation from the sick.

7. But the Central Board strongly deprecates all measures of coercion, which, when tried upon the continent, have invariably been productive of evil. The best inducements to a prompt acknowledgment of the disease having entered a family, as well as to an early and voluntary separation of the

* When a community supporting its own poor wishes to establish a Board of Health, a public meeting of the rate-payers must be called to nominate the members, a list of whom must be transmitted to

this office, under cover, "To the Clerk of the Council," for the purpose of being endowed with the necessary powers by an order of the lords of the council.

sick from the healthy, will always be found in the readiness and efficiency with which public charitable institutions attend to the objects noticed in par. 2. (See p. 655.)

8. It is with much satisfaction that the Board feel themselves authorised to declare, and it will no doubt be highly consolatory to the public to learn, that under proper observances of cleanliness and ventilation, this disease seldom spreads in families, and rarely passes to those about the sick, under such favourable circumstances, unless they happen to be particularly predisposed by intemperance, great exhaustion from fatigue or mental anxiety; indisposition of any kind, more especially bowel complaints.

9. When the circumstances of any population render it probable that a temporary cholera hospital will soon be required, such accommodation upon a limited scale should be prepared at once, lest the want of it should add to the panic, which the first cases, when they actually occur, are but too apt to produce.

10. The situations which the board would recommend for temporary cholera hospitals would be, those most detached, insulated, and thoroughly exposed to free and open air; the description of a house, such as would admit of the most perfect ventilation and cleanliness, and the largest space around the sick.

11. When an individual shall have been attacked with this disease, and placed under the most favourable conditions, as already pointed out, both for the recovery of his own and the safety of the public health;—the room or apartment where he may have been attacked, and from which he may have been removed, should be purified by scrubbing, lime-washing, free ventilation, and fumigation by heated sulphuric acid and common salt, with black oxyde of manganese, or the same acid with nitre; or, when these materials cannot be obtained, by strong vinegar thrown upon heated bricks. The bed, bedding, and clothes, should be immersed in water and washed with soap.

12. To correct all offensive smells, chloride of lime may be applied; but great caution is recommended in the use of this material, its fumes, continued for any length of time, having been found highly prejudicial to health, more particularly in delicate persons.

13. A few steady men, proportionate to the extent of the district in which they are to act, should be appointed to lime-wash and purify, as above recommended (under the direction of medical authority), such apartments as may be pointed out by the inspectors of the local board.

14. Those who die of this disease, should be buried within twenty-four hours, wrapped in cere cloth, or in a sheet or blanket

saturated with pitch or coal tar, and be attended to the grave by as few persons as possible.

INDIVIDUAL PRECAUTIONS.

15. *Diet.*—No sudden nor extensive alterations should be made in the usual modes of living. All changes of food, to be useful, indeed, not to be absolutely prejudicial, should tend to render it drier, more nutritive and concentrated. Moderately costive bowels, the almost invariable consequence of a regular, invigorating diet, will be found more conducive to exemption from cholera than an opposite habit, everything tending to relax the bowels unduly, being apt to induce a predisposition to the disease.

16. Avoid, above all things, overloading the stomach. Indigestion, however produced, disposes the body to cholera. If in easy circumstances, take for dinner a moderate quantity of roast meat in preference to boiled, with stale bread or good potato, two glasses of wine with water, or an equivalent of good spirits and water, or of sound porter or ale. Eat garden-stuff and fruit sparingly, and avoid fat luscious meats. In short, whilst under apprehension of cholera, use a dry, nutritive diet, sparing rather than abundant, observe great caution as to eating suppers, for cholera most frequently attacks about midnight, or very early in the morning.

17. Temperance should be most rigidly observed in everything. In short, no means should be neglected which may tend to preserve individual health, for although the neglect of any or all of these cautions would not of itself produce the specific disease called spasmodic cholera, yet such neglect would most assuredly dispose an individual living in an infected atmosphere to be attacked by that disease, who most probably might otherwise have escaped.

18. *Exercise.*—Moderate exercise in the open air, in fine weather, is conducive to health; but the greatest care should be observed by all, more especially by the weakly and the aged, not to carry that exercise to fatigue or profuse perspiration, nor to sit down with wet feet or wet clothes. Indeed the most particular attention should be paid to keeping the feet dry and warm.

19. Whenever aperients may become indispensable, those of a warm aromatic kind in moderate doses, should alone be resorted to, such as two of the pills No. 1, or a teaspoonful of the powder No. 4, taken over night, followed in the morning by the aperient draught No. 7. What is generally understood by salts—viz. Glauber's salts and Epsom salts, as well as other cold purgatives, should not be taken on any account, without the express prescription of

a medical man, when cholera is prevailing at the time.

20. The medical members of the board beg to state, that no specific preventive against cholera is known to exist, and that the drugs hitherto offered with this pretension, in places where the greatest ravages have been caused by this disease, not only did not possess the negative virtue of doing no harm, but were found to be absolutely injurious. The true preventives are, a healthy body, and a cheerful, unruffled mind; but habitual drugging, at all times improper, is to be deprecated in the strongest terms when epidemic disease is present or apprehended.

TREATMENT.

21. No remedy at all approaching the nature of a specific has been as yet discovered for this disease in its more aggravated form. In fact, no one mode of cure can be usefully employed under all the circumstances of any disease. The symptoms, and grades of intensity with which spasmodic cholera makes its attacks, vary with the conditions of the subject; its treatment, therefore, must vary with these grades and conditions.

22. The leading premonitory symptoms are, spontaneous looseness of the bowels, with or without griping pains; flatulence, and distention of the abdomen, or slight spasms of the extremities, apoplectic vertigo, with nausea, lassitude, weakness, or various combinations of these symptoms.

23. *When cholera is prevailing, looseness of bowels, however slight, should on no account be neglected. It is by far the most usual forerunner of the disease, as well as the most important, because, in its various degrees, it constitutes that stage in which life may be most easily saved.* When this premonitory symptom affords time for distinct treatment, it may be checked, if mild, by the draught No. 8, to be repeated every second or third hour, if necessary, for three or four times.

24. But if the purging be severe, a moderate bleeding of ten or twelve ounces, or cupping, or leeches, if there be local pain, should be resorted to, and one of the powders No. 3 should be given forthwith, to be washed down with the draught No. 6. This dose to be repeated every second hour for three or four times, if necessary; the patient being strictly confined to bed, with a view to perspiration.

25. A warm-bath for half an hour, followed by rubbing with flannel or flesh brushes; warm fomentations to the belly by means of bladders half filled with hot water, or flannels soaked in hot spiced wine, or in hot spirit and water, will afford much relief.

26. After the diarrhoea shall have been

fairly arrested, say for twelve hours, a tablespoonful of castor oil, with ten drops of laudanum, should be given, in an ounce of peppermint or cinnamon water,* or the pills No. 1 over night, to be repeated in the morning, if necessary, with the draught No. 7.

27. When there are cramps, a dessert-spoonful or two of the liniment No. 10 should be assiduously rubbed on the part affected.

28. If there be nausea or sickness, without acute pain at the pit of the stomach, give an emetic of twenty-five or thirty grains of ipecacuanha in half a pint of warm water.

29. When giddiness and pain at the pit of the stomach are present, bleed as above, and give a teaspoonful of the aperient powder No. 4.

30. Let the diet during all these premonitory symptoms consist of light farinaceous preparations—sago, tapioca, panada; chicken broth and tepid drinks to promote perspiration.

FIRST STAGE OF THE ATTACK.

Treatment.

31. When the motions have lost the appearance of feculent matter, and have put on that of rice-water or gruel, with vomiting of similar liquids, spasms, intense thirst, irregular, slow, and weak pulse, give an emetic of half a pint of a solution of common salt, milk-warm, and as strong as it can be made, with a teaspoonful of mustard powder. Place a mustard plaster, No. 11, or apply the hot turpentine fomentation, No. 12, over the whole stomach, belly, and front of the short ribs. Give one of the pills No. 2 every alternate half-hour, and in the intervals one tablespoonful of the mixture No. 9. Let the patient drink cold water or iced water if it can be had, allowing no more than two or three tablespoonfuls at a time, or bits of ice the size of a nut may be swallowed whole, to allay the burning sensation at the pit of the stomach. Let bags or stockings filled with heated bran or sand, or bladders half full of warm water, be placed along the patient's spine or sides, and to his feet. Let him be kept still, if possible, wrapt in warm blankets, but not oppressed with heat or coverings, particularly over the chest and neck.

SECOND STAGE OF THE ATTACK.

32. If, notwithstanding these measures, the patient should appear to be sinking, the pulse becoming weaker, the skin colder,

* A dose of peppermint or cinnamon water, may be made by rubbing down three or four drops of the essential oil, with half a teaspoonful of sugar, adding two tablespoonfuls of water by degrees.

the breathing more laborious, the individual appearing less anxious about his own situation, then, in addition to the steady application of the measures already recommended, let an injection be administered, consisting of two or three pints of water, as warm as the hand can conveniently bear, with the addition of a wine-glassful of spirits, to be repeated, if thought necessary, at intervals of an hour.

THIRD STAGE.

33. When the pulse at the wrist has ceased, or become almost imperceptible, with coldness of the extremities, and perhaps blueness of the surface, particularly of the lips, hands, and feet; irregular breathing, loss of voice, suppression of urine, ghastly countenance: although under these distressing appearances there is but little room for hope, our exertions should not cease.

34. At this stage of the attack the vomiting and purging will generally have ceased, or at least be much diminished; the belly will be drawn in, and pain, sinking, and death-like oppression, will be felt about the heart.

35. Let the hot-water injection be repeated, with three or four drachms of the tincture of assafoetida, and retained for some minutes by means of a napkin.

36. Let mustard plasters be applied to the inside of the thighs and calves of the legs, in addition to that on the belly, which may be removed to the sides of the chest or back; let the limbs be diligently rubbed with warm cloths; let small quantities of light cordials be given at intervals, such as a teaspoonful of compound tincture of cinnamon, or of aromatic spirit of ammonia, in a teaspoonful of water, and let the treatment ordered for the second stage be continued until the pulse becomes distinctly perceptible at the wrist.

STAGE OF RE-ACTION OR FEVER.

37. When the pulse has begun to rise, and the heat and natural colour to return to the surface, keep the patient perfectly quiet, but let him be carefully watched, for a sudden sinking of the powers of life not unfrequently occurs at this period of the disease. Opiates of all kinds must now be withheld; and wine, brandy, and other stimulants, used very sparingly, and withdrawn altogether as soon as the pulse and heat are steadily re-established; when mild tepid drinks are to be substituted, and the powder No. 5 given every hour, instead of the medicines hitherto used, should the bowels be torpid.

38. Under this treatment a warm copious sweat often breaks out, or a more healthy discharge takes place from the bowels, or

some urine is passed, which of all others is the most favourable sign. When such is the case, the patient, with proper care, will often pass into a state of convalescence, without further difficulty or danger.

39. It often happens, however, notwithstanding all our care, that the re-establishment of the pulse and heat are closely followed by symptoms of fever, by some degree of stupor, by great oppression of breathing, by distention and tenderness of the belly, all of which indicate danger.

40. The moment such symptoms appear, bleed from the arm, or from the part most affected, by leeches or cupping, to 10, 12, or 16 ounces, according to the effect produced by the bleeding. Reduce the temperature of the patient's room, give cool drinks, and apply cold wet cloths or pounded ice in bladders to the head, and give the powders No. 5 as already ordered.

41. When convalescence has begun, observe the strictest care as to diet. At this period a full meal has in numerous instances brought on a relapse. Indeed animal food, even in a small quantity, under these critical circumstances, has often been attended with dangerous consequences to those just recovering from cholera. To such, even the mildest articles of food should be given in much smaller quantities, and at shorter intervals than to those in health; and their ordinary diet and habits should be very cautiously resumed.

W. PYM, Chairman.

Pills No. 1.—Each to contain

Blue pill, } of each, $2\frac{1}{2}$ grains.
Toasted rhubarb, }
Oil of aniseseeds, 1 drop.

Pills No. 2.

Calomel, 2 grains.
Opium, $\frac{1}{8}$ grain.
Camphor, $1\frac{1}{2}$ grain.
Capsicum, $1\frac{1}{2}$ grain in each pill.

Powder No. 3.

Compound powder of kino, 15 grains; or
compound powder of ipecacuanha, 10 grs.

Aperient Powder No. 4.

Calcined magnesia, } each 2 drachms.
Rhubarb in powder, }
Ginger in ditto, 1 drachm.
A teaspoonful for a dose.

Powder No. 5.

Calomel, 1 grain.
James's powder, 2 grains.
Nitro in powder, 3 grains.
The whole for one dose.

Draught No. 6.

Chalk julep, 5 drachms.
 Compound tincture of
 cardamoms, } each 1½ drachm.
 Mindererus spirit, }
 Ipecacuanha wine, 30 drops.
 Oil of aniseseed, 3 drops.

Draught No. 7.

Tinct. of rhubarb and aloes, } of each 3 or 4
 Infusion of cloves, } drachms.

Draught No. 8.

Chalk julep, 6 drachms.
 Tincture of catechu, 1 drachm.
 Tincture of opium, 25 drops.
 Oil of peppermint, 3 drops, first rubbed
 down with two drachms of sugar.

Mixture No. 9.

Mindererus spirit, 2 ounces.
 Mint water, 2 ounces.
 Carbonate of ammonia, 1 drachm.
 Syrup of ginger, 3 drachms.
 Sweet spirit of nitre, 3 drachms.
 One tablespoonful for a dose.

Liniment No. 10.

Comp. soap liniment with opium, 8 drachms.
 Tincture of cantharides, 2 drachms.

Mustard Plaster No. 11.

Two tablespoonfuls of flour of mustard,
 with a dessertspoonful of common salt,
 mixed with water into a thin paste, to be
 spread upon brown paper, and applied to
 the part until redness, heat, and soreness
 are produced.

Turpentine Fomentation No. 12.

A piece of flannel, large enough when dou-
 bled into three folds to cover the whole
 front of the abdomen, tightly wrung out
 of very hot water, and immediately soaked
 in spirit of turpentine, to be placed on the
 belly, and covered with a piece of dry
 flannel to prevent evaporation; to be left
 on until a burning sensation is felt.

LITHOTOMY

BY A NATIVE OF INDIA.

THE following memorandum relative to
 a native lithotomist, is drawn up by G.
 King, Esq., surgeon, Patna, and appears
 in the last volume of the *Calcutta Medical
 Transactions*, just published. "At Poc-
 narai, a village, three coss from Patna,
 resides an Hujam, of the name of Chuk-
 kun; who says that he has performed the
 operation of lithotomy on thirty-five per-

sons, one only of whom died: in that case
 the stone was of very large size, and broke
 into several pieces; the patient died on the
 third day after the operation. He shows
 twenty calculi, some of which are of con-
 siderable bulk. The instrument he uses, is
 something like a clumsy-made penknife,
 and he describes his mode of operating as
 follows:—The patient being put in a con-
 venient posture and held firmly by several
 persons; an assistant presses the lower
 part of the abdomen, in the direction of the
 pelvis. The operator introduces his fore
 and middle fingers into the rectum, and
 crooking them so as to obtain a hold of the
 stone, he brings it towards the perinæum,
 till it becomes prominent there. He then
 makes an incision over the stone, (on one
 side of the rapha, and about an inch from
 the anus,) and extracts it. The urine
 passes through the wound for some days;
 and the cure is generally completed in from
 twelve to twenty days. Chukkun acquired
 his art from his father, and has now taught
 his son to perform the operation. As this
 man keeps no register of the cases, his
 statement may be liable to errors, respect-
 ing the number of persons on whom he has
 operated; and probably a liberal deduction
 should be made from his account of success,
 which it is of course his interest to magnify.
 In fact, it is almost an invariable custom
 with native operators, to assert that their
 operations are attended with certain suc-
 cess; and that cures in their hands are in-
 fallible. At the same time we must ac-
 knowledge, that they evince much cunning
 and dexterity in assigning reasons for not
 operating on unfavourable cases. They
 operate with a view to *cure*, and would not
 hazard their reputation for the prospect of
 alleviating continued suffering, when they
 did not expect ultimate recovery." The
 subjoined note is added by R. Frith, Esq.
 "The patient in this case was a native boy,
 14 years of age, who had been suffering from
 symptoms of stone in the bladder. The old
 operation '*by the gripe*' was performed.
 The patient's belly was first rubbed with
 oil, and then the stone was brought down
 by pressure over the pubis; and being se-
 cured by two fingers introduced into the
 rectum, by which it was drawn strongly
 against the perinæum, an incision was there
 made over the stone, with an instrument
 resembling a small razor, and the stone
 was extracted without the use of any for-
 ceps. No fever followed, nor were there
 any unfavourable symptoms, and the wound
 was completely healed in twenty days."