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CHOLERA.

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HOW TO AVOID IT,

AND

HOW TO TREAT IT, IN THE ABSENCE OF A PHYSICIAN.

NO. 2.

"HEALTH TRACTS FOR THE PEOPLE."

CHOLERA,

HOW TO AVOID IT, AND HOW TO TREAT IT,

IN THE ABSENCE OF A COMPETENT PHYSICIAN.

Presented by
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"*Experientia et progressus.*"

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CHOLERA.

The following brief remarks and directions, collated chiefly from recent writers, are published for the purpose of enabling those who are either remote from medical aid, or who are from any cause unable to procure such aid as to *promptly* arrest the disease, if possible, in its commencement.

It is not intended to interfere in the slightest degree with the views of respectable physicians, for it is earnestly recommended to every one to procure medical advice on the very first appearance of the premonitory symptoms. This publication seems to be necessary at this time, for the disease is already invading our shores, and also from the fact that experience has certainly taught us, that if the people of any locality are prepared for its approach, it may not even come, or if it does, it may be stripped of more than half its horrors, and may be avoided almost as easily, or even treated as successfully, as any ordinary disease.

People generally are too apt, either from carelessness or *ignorance*, to invite its attack and to encourage its approach, rather than by attention to proper sanitary rules, prudence in diet and conduct, etc., to repel or prevent its invasion.

It is thought that a short description of the disease, and a few simple directions for its avoidance and treatment, may benefit the community and assist, at least, in staying its ravages.

As a general rule, if an individual carefully avoids improper diet, imprudent use of stimulants, suppression of perspiration, unusual fatigue, excess of any kind, anxiety or fear, he is almost as safe as if Cholera had never visited the country; in fact there are few persons ever attacked whose cases if carefully investigated would not be found to be consequent on the disobedience of some of the ordinary well known laws of health.

One of the first rules necessary to observe, is universal cleanliness. Every person should see that the dwelling and premises he occupies are scrupuously clean, that there are no foul odours arising from accumulated animal or vegetable filth about his residence; the grounds and privies, as well as the kitchens and apartments, should be thoroughly cleaned and disinfected; chloride of lime or other disinfectant should be freely used. There should be no stagnant water suffered in the vicinity.

These rules somewhat modified, will apply to ships and vessels of every description.

During the prevalence of Cholera it is important that every one should clothe more warmly than usual. Flannel should be worn next the skin at all times, even in hot weather. Abrupt changes in diet must be avoided; the body should be fairly nourished during the prevalence of the epidemic, chosing food that is most easily digested; but there should be as

little change as possible from the accustomed manner of living.

Those who are accustomed to use stimulants, should continue to use them; it is not even safe at such a time to recommend abstinence to the toper.

It should be noticed that fright or anxiety is one of the strong predisposing causes of attack, and should be avoided as much as possible.

SYMPTOMS OF CHOLERA.

It is generally supposed that the first symptoms of the disease is diarrhœa, but this is not always the case; sometimes the first feeling perceived, is that of overpowering lassitude, head ache, or loss of appetite, accompanied with a pallid, anxious and sorrowful cast of countenance. This often continues from six to twelve hours before vomiting or purging commences; this symptom is not always attended to by the patient or his friends; indeed it is often the case that the disease is allowed to progress until the rice-water discharges have commenced before treatment is resorted to, or medical aid procured.

In the majority of cases the disease is ushered in by a diarrhœa, continuing for a certain number of hours or days or weeks, varying in severity in different cases and in different periods of an epidemic. During the prevalence of this disease large numbers of persons are affected with looseness of the bowels, and in a certain portion of these the disease culminates in Cholera; in a large number, however, it has no such termination.

The initiatory diarrhœa of Cholera, though often of a painless character, is not always so ; it is at first what is usually called " billious." The passages are yellow, and they retain this color until the diarrhœa, if not arrested, becomes more violent, when they assume an opaline appearance, and become what are called "serous or rice-water" discharges. Soon after, or sometimes simultaneously with the occurrence of the more violent diarrhœa, there are cramps and vomiting.

The vomiting at first is merely the contents of the stomach, and frequently contains food that has remained undigested for many hours. If continued the vomit will become like the discharges that occur in the violent purging, *i. e.*, it will have the appearance of " rice-water." The cramps usually begin in the lower extremities, and often pass to the whole body. Sometimes they are not sufficiently severe to distress the patient much, but at other times are terribly painful. They frequently cease as the period of collapse progresses.

About the time the cramps and vomiting occur there is a marked suspension of urine, and a very noticeable change in the voice.

These symptoms are soon followed, or are sometimes accompanied with a burning thirst, and a sense of oppression at the pit of the stomach.

They are followed, if not arrested, by the stage called " collapse." This is indicated by feebleness, or even absence of pulse at the wrist, while the heart is beating with considerable force; coldness and lividness gradually spreading over the surface of the body,

a sense of prostration and feebleness, although the patient often exhibits considerable muscular strength, and a cold clammy sweat, giving a shriveled appearance to the hands and other parts of the body, as though they had been immersed for a long time in water, or like the hands of a washerwoman after a hard day's work.

Respiration becomes frequent and difficult, and the breath cold. The skin loses its elasticity, so that on pinching it up it falls slowly back to its natural position.

The mind is usually unimpaired, and although the patient is unable to speak except in whispers, and may in consequence of feebleness show a disinclination to answer questions, yet the intellect generally remains in full force, only beginning to wander somewhat as the scene closes.

It should be remembered that cases are not necessarily fatal, even if collapse should occur. The patient often reacts, and may recover even if the collapse has been severe; when it passes off it does so slowly, the pulse increasing in force gradually, warmth returning in the same manner. The patient often falls into a sleep of unusual soundness, during which the respiration becomes light and easy, the pulse freer, while a warm and gentle perspiration bedews the whole body; and if the kidneys begin to exercise their functions it may be regarded as a very favorable symptom. The principal danger to be apprehended now is from the inflammatory action that may be set up, as pneumonia, dysentery, disease of the alimentary canal, or the changed condition of the blood.

This danger is often increased by injudicious treatment during the diarrhœa or in the cold stage, as by over-stimulation, the too free use of opium, etc.

TREATMENT.

The treatment of Cholera should be confined,—1st, to checking the diarrhœa, and 2d, to obviating the symptoms as they arise.

To fulfil the first indication, astringents combined with carminatives and stimulants may be given in judicious combination. The repeated failures of what has been termed the "heroic treatment of Cholera" has induced the majority of physicians to direct their attention chiefly to checking the premonitory diarrhœa; for in the large majority of cases, if this is really checked, the disease is cured.

For the second indication, the directions given below, in the opinion of the writer, promise as much success as any that he has seen used.

On the appearance of the symptoms first described, *i. e.*, the lassitude, want of appetite, etc., it is advisable to give an emetic of mustard, or of common salt in tepid water. This may relieve the first symptoms complained of entirely, or prevent the advance of the disease; at any rate can do no harm.

In the commencement of diarrhœa, the patient should take two tablespoonsful of the Mixture No. 1, (see formula for its preparation,) and repeat the dose every hour until it is checked or merges into the "rice-water" stage. He should at the same time

be sent to bed, with sufficient covering to produce gentle perspiration. It is of the utmost importance that he should be kept as quiet as possible, keeping always and under all circumstances the recumbent position, he should resist with all the strength of *will* he possesses the inclination to discharge from the bowels, and instead of being allowed to rise to go to stool, should use a bed pan for the purpose. Very much injury is done by allowing the patient in any stage of Cholera to make use of any physical exertion that can be possibly avoided. REST, *and rest in bed, is as important as any medication whatever.*

On the first appearance of the "rice-water" discharges, thirty grains of powdered hydrochlorate of ammonia (sal ammoniac) dissolved in half a tumbler of water or cammomile, or mint tea should be given with twelve (12) drops of the chlorodyne mixture No. 2. (See formula for its preparation, page 15.) The water or tea may be sweetened, if the patient prefers it. In mild cases repeat the medicine every hour in gradually diminished doses until reaction takes place; for instance, for the second dose, give twenty grains of hydrochlorate of ammonia, with six or eight drops of Chlorodyne; for the third dose, ten grains of ammonia, with five to six drops of Chlorodyne, and so on. In very severe cases the doses may be repeated as often as every half hour until signs of reaction occur.

Great care must be taken not to increase the doses prescribed, especially of the Chlorodyne Mixture, unless by the advice of a Physician; but if the medicine should

be rejected *immediately* after being received into the stomach, the dose should be repeated.*

The doses prescribed above are intended for persons of middle age, *i. e.*, from 21 to 55 years. Young persons require a smaller dose to produce an equal effect. And the aged, though less susceptible to the action of medicine, cannot bear an equally forcible impression. The doses, therefore, should be diminished accordingly. The dose for a person from 14 to 21 years, will be two-thirds of the full dose.

For those from 7 to 14 one-half.
" " " 4 to 7 one-third.
" " of 4 years one-fourth.
" " " 3 " one-sixth.
" " " 2 " one-eighth.
" " " 1 " one-twelfth.

The prescriptions should be very carefully prepared according to the formula given, by a competent and reliable Pharmaceutist, and the bottles carefully labeled with directions as above. The mixture No. 2 should be contained in dark glass, or so covered as to exclude the action of the light, as exposure to light would injure its properties.

The hydrochlorate of ammonia may be prepared in doses of thirty grains each, and the papers containing each dose enclosed in tin foil; these may be divided into parts, as may be necessary according to the above directions for administration.

During the cold stage the patient should be allowed

*The Chlorodyne Mixture contains 120 minums of Hydrocyanic Acid, with 600 minums of the other ingredients—in all 720 minums. A dose of 12 minums would, therefore, contain 2 minums of the Acid. But if the mixture is dropped from an ordinary vial, it contains in all 1450 drops, or 240 drops of the Hydrocyanic Acid. Therefore, the full dose prescribed, 12 drops, contains 2 drops of the Acid, equal to 1 minum.

as much ice cold water as he desires, even if the stomach should reject it frequently. He may swallow small lumps of ice, or may allow ice to dissolve slowly in the mouth for the purpose of allaying thirst.

Formerly in the treatment of Cholera, the patient was denied the use of cold drinks. Experience has proved that this was not only cruel, but that by giving it freely we supply in some measure the waste of fluids that take place in consequence of excessive discharges.

As soon as the cold stage commences, or there are symptoms of collapse, the patient should be wrapped in warm blankets, and bottles filled with warm water, or bags filled with dry, warm sand, or salt placed around his body, and especially to the feet and limbs; care should be taken not to increase this heat too much, as to do so would only oppress the patient and do more harm than good. Friction, either with the hand or with the flesh brush, should be resorted to and industriously kept up, but without exposing any portions of the body to cold. Mustard plasters should be applied to the stomach and occasionally renewed.

The best remedy for cramps, if they should occur in spite of the "Chlorodyne mixture," is *forced extension* of the extremities, but as a general rule Cholera patients should be disturbed as little as circumstances will permit.

During this stage the patient should not be urged to take food, it will do him no good whatever, and very probably do him harm.

When the collapse appears to be passing off as indicated by the gradually increasing warmth of the

body, the breathing becoming easier and the pulse at the wrist becoming freer and more distinguishable, great care must be taken that medication is not carried too far; many cases are lost in the stage of reaction by over stimulation or injudicious management. *We must be careful not to do too much.*

The patient may now begin to take small quantities of beef tea, barley or rice water, wine jelly, etc., at short intervals, care being taken not to overload the stomach.

He must be kept as quiet as possible, but as soon as his strength will permit he should be removed to a clean bed, everything infected at once be removed from the room, which should be carefully ventilated and disinfected. The sheets, clothes, and bedding should be destroyed, as otherwise they might be the means of spreading the infection.

Careful nursing, as well as great attention to diet must be kept up until complete restoration to health is effected, for it should be remembered that errors in this respect may cause relapse, and the patient who has passed the dangers of the primary attack, may be shipwrecked at last.

GENERAL REMARKS.

As it regards the treatment of Cholera indicated above, the writer does not claim anything like infallibility for it, or even that it is better than many other methods that have been adopted; but in looking over the various modes of treatment of the past he has en-

deavored to reject what has been found useless, and advise only the treatment that has heretofore been useful, and which in his judgment promises best for the future.

Among the modes of treatment that the experience of the last thirty-five years seem to have proved useless if not injurious are, 1st, *Alcoholic Stimulation.* 2d, *Opium* in large and frequent doses. 3d, *Calomel*, in any stage of the disease. 4th, Excessive or prolonged *counter irritation*, and 5th, *Bleeding.*

1st. *Alcoholic Stimulation.* It is not to be wondered at that on first observing a patient in the stage of Cholera collapse—almost pulselesss—with the cadaverous look and cold surface of the body, the idea of free stimulation should suggest itself, but experience has proved such a course any thing but serviceable, small quantities in the initiatory diarrhœa may do good, but in the cold stage stimulants should be withheld.

2d. *Opium* in very large doses, often repeated, has been a popular remedy, but it is now almost the universal opinion of those who have had most experience in the disease, that except in very small doses it does much more harm than good. Large doses, especially in the cold stage, remain in the system for awhile without producing apparent effect, and afterwards, when reaction takes place, the results are often disastrous from its *accumulative* effects, and the patient is lost, who otherwise might have recovered from the disease.

3d. *Calomel*, has figured more largely in the treat-

ment of Cholera, probably, than any other drug. Many physicians have claimed success from its use. Doses even to the extent of a drachm or more have been administered at short intervals on the supposition that the liver was at fault in this disease. Careful examination of numerous cases after death prove that this is not the fact. This much abused drug is sometimes useful in the treatment of disease, but injudiciously given it has often produced pernicious results.

4th. *Excessive or prolonged counter irritation.* It has been the custom sometimes to resort to violent counter irritation, such as covering the body with mustard plasters, rubbing on irritating or even blistering lotions, using hot or even boiling water, etc. But such means fail to be of service, and only oppress the patient. Dry, moderate heat, and friction to the skin may be of use, or at any rate may do no harm.

5th. Bleeding has been resorted to by many, but it has been clearly shown that the majority bled in any stage of the disease DIE!

FORMULA.

Mixture No. 1.—For "Cholera Diarrhœa."

℞. Pulv. Aromat. ℥ss. Tinct. Kino, f℥ii. Tinc. Cardam. Comp. f℥ss. Tinc. Opii. f℥i. Mist. Creta. Prep. f℥xx. *Misce. bene.*

Dose for an adult two tablespoonfull's, as previously directed. Shake the bottle briskly before giving the medicine.

Mixture No. 2—"Chlorodyne Cholera Mixture."

℞. Tinct. Canabis Indica, f℥ii. Chloroform, f℥iv. Theriaca, f℥ii. Mucil. Accacia, f℥ii. Morph. Muriat. grs. v. Acid Hydrocyanic. Dil. (2 per cent.) f℥ii. Ol. Menth. Pip, gtt. vi. *Misce bene.*

To be given as previously directed.

The morphia should first be dissolved in the chloroform, then mixed with the molasses, with the addition of a little gum water, (it will not mix alone) first using about the same bulk of chloroform and molasses, afterwards adding the rest of the chloroform by degrees, constantly shaking the bottle briskly in which it is made up, and then add gradually the other ingredients.

Hydrochlorate of ammonia is very difficult to pulverise in the ordinary way. This may be very easily effected by making a boiling saturated solution of the salt, and stirring it as it cools. The salt is thus made to granulate, and in this state, after having been drained from the remaining solution and dried, can be readily pulverised.

Beef Tea, may be made as follows: Cut two pounds of lean but tender beef into very small pieces, introduce them into a bottle, pouring in just enough cold water to cover the beef; cork the bottle and put in a pot of cold water; boil for two or three hours; then strain off the liquor; pour off all you can; then put the residue in a linen bag and express. A little salt and pepper may be added.

Barley or Rice water.—Put three pints of water to boil; add to it one ounce of barley or rice well washed, one ounce of sugar, a small quantity of lemon rind. Let it boil about an hour and a half; strain it, and it is ready for use.

Wine Jelly.—Put in stew-pan one ounce of gelatine, (which can be procured from any respectable druggist.) two ounces of white sugar, two whites of eggs and shells; the juice of two lemons, with a small quantity of the rind, and two ordinary wine glass-full's of sherry wine; beat well together for a few minutes, then add two pints of cold water, set it on a slow fire, and keep whipping it till boiling. Let it simmer gently for ten minutes, and strain through a jelly-bag. It is then ready to be put in ice or in some cool place. Oranges may be used instead of lemons, or any other delicate flavor introduced which may be preferred.