

**A systematic and practical description of the spasmodic cholera / [by]  
Alexander Smith.**

**Contributors**

Smith, Alexander, M. D.  
University of Glasgow. Library

**Publication/Creation**

London : Smith, Elder, 1831.

**Persistent URL**

<https://wellcomecollection.org/works/cya28gty>

**Provider**

University of Glasgow

**License and attribution**

This material has been provided by This material has been provided by The University of Glasgow Library. The original may be consulted at The University of Glasgow Library. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

15

A

SYSTEMATIC AND PRACTICAL

DESCRIPTION

OF THE

SPASMODIC CHOLERA,

BY

ALEXANDER SMITH, M. D.

MEMBER OF THE ROYAL ASIATIC SOCIETY.

OF THE ASIATIC, MEDICAL, AND PHYSICAL SOCIETIES OF CALCUTTA,  
&c. &c.

ASSISTANT SURGEON, KING'S DRAGOON GUARDS.



LONDON: SMITH, ELDER, AND CO.

AND

DUBLIN: FANNIN AND CO.

MDCCCXXXI.

SYSTEMATIC AND PRACTICAL

DESCRIPTION

# SPASMODIC CHOLERA.

ALEXANDER SMITH M.D.

PRINTED BY THOMAS I. WHITE, 149, ABBEY STREET.

LONDON: SMITH, ELDER AND CO.

DUBLIN: RANKIN AND CO.

TO THE

**Royal Asiatic Society**

OF

GREAT BRITAIN AND IRELAND,

THIS ATTEMPT TO PLACE THE

**COUP DE MORT OF INDIA**

ON A

PRACTICAL AND SYSTEMATIC BASE

IN

PATHOLOGICAL MEDICINE,

IS DEDICATED,

WITH EVERY SENTIMENT OF RESPECT,

BY

THE AUTHOR.

TO THE  
Royal Asiatic Society  
GREAT BRITAIN AND IRELAND  
THE TRUSTEES OF THE  
GOVERNMENT OF INDIA  
Digitized by the Internet Archive  
in 2015

SPASMODIC CHOLERA.  
STATISTICS

THE following Observations formed the substance of a Report transmitted from Bengal to the Army Medical Board, and lately published in the Medico-Chirurgical Review. They do not lay claim to originality of theory, or to exclusive success of practice,—neither are they illustrated by quotation, or extended by detail ; but they present a condensed description of the Spasmodic Cholera, as it occurred to the Author during his service in India, and they endeavour to place this appalling Disease on something like a connected and systematic base in the Practice of Medicine.

## CONTENTS.

		PAGE
FIRST OBSERVATION,	The Definition of Spasmodic Cholera, -	7
II.	The General Cause and Effects, - -	7
III.	The Predisposing Cause, - - -	8
IV.	The Exciting Cause, - - - -	8
V.	The Sporadic Form of the Disease, - -	10
VI.	The Premonitory Signs, - - -	10
VII.	The Diagnosis, - - - -	10
VIII.	The Symptoms, - - - -	11
IX.	The Prognosis, - - - -	12
X.	The Treatment, - - - -	12
XI.	The Appearances after Death, - -	15
XII.	The Prophylaxis, - - - -	16

## DESCRIPTION

OF THE

# SPASMODIC CHOLERA.

### I. DEFINITION OF SPASMODIC CHOLERA.

VOMITING and purging of serous matter; spasms of the extremities; universal collapse. After a few hours, reaction, or insensibility and death.

### II. THE GENERAL CAUSE AND EFFECTS OF SPASMODIC CHOLERA.

The Cholera is produced by a vitiated atmosphere, which contaminates the blood, during its circulation through the lungs of persons predisposed to the disease, by the depressing passions, irregularity of the natural functions, or any debilitating power. The immediate effect of this contamination is, that a stream of deteriorated, probably decomposed blood, is thrown into circulation, in the course of which the crassamentum becomes congested, and incapable of supporting the healthy organic action, while the separated serum, surcharging the blood-vessels, forces its way through the capillaries into the stomach, intestines, and over the surface of the whole body. The absorbent system is suspended; the nerves fall into irregular action; the great sympathetic loses its influence over the organs which it supplies; and the heart assumes a morbid, imbecile excitement. The hepatic ducts are constricted, and the secretion of urine is suppressed. The stomach falls into a state of violent inverted action, and the intestines are incapable of freeing themselves from the morbid secre-



tions which oppress them. The vital energies are universally prostrated; and nothing escapes the shock, save the sensorium, which remains sound amidst the agonizing spasms of its nerves, until the destruction of almost every other function,—when, worn out by intensity of suffering, the mind at length sinks into insensibility, and death shortly follows.

### III. THE PREDISPOSING CAUSE OF SPASMODIC CHOLERA.

Perhaps there exists no proof that any idiosyncrasy, or age, or occupation, or mode of living, has a direct tendency to induce a predisposition for this disease; but some well-marked cases have occurred to me, in which exhaustion, hollow, dark-encircled eyes, and shrunken features, succeeded anxiety and fatigue during very hot weather, and terminated in collapsed Cholera. It is also worthy of remark, that, during a late hot season, two regiments lay within a hundred miles of each other—the one in crowded barracks, having a very low site, with a nulla, or stagnant pool, in the immediate vicinity,—and the other in excellent, airy, detached barracks, situated on one of the most elevated and healthy plains of Central India: the former, being cheerful and contented, were wholly free from Cholera; while the latter corps, less happy and contented, were subjected to four visitations of the disease during the season, and lost a number of men.

### IV. THE EXCITING CAUSE OF SPASMODIC CHOLERA.

Neither theory nor experiment has yet succeeded in demonstrating the nature of the atmospheric composition, which, in passing over certain territories, excites Spasmodic Cholera in predisposed persons.

It is known, however, that the disease continues its ravages during a particular state of weather, or while a certain wind prevails, and ceases when the wind or weather undergoes any change: it is most virulent during the

hot season of the year, and exercises its power under the most opposite extremes of dryness and humidity. At one time, the Cholera will disappear when the rains are succeeded by clear hot weather; at another time, it will cease when a hazy easterly breeze interrupts the periodical course of the scorching north-west winds; and, again, it will dissolve in the first showers of the rainy season. This occurrence of Cholera under every variety of weather, and its temporary dispersion by even slight changes in the currents of the air, prove that the morbid principle is not universally disseminated through the atmosphere, and lead to the inference, that local exhalations, subjected to the action of an atmosphere impregnated with certain properties, form with it the exciting cause of the disease. Cholera appears in situations topographically opposed to each other—at one time, many hundred miles inland,—at another, on the sea shore: hence it is evident, that Malaria, or Marsh Miasma, cannot be an exciting cause of the disease; and this opinion is confirmed by the fact, that marshy grounds are not more liable to Cholera than dry lands are, and, further, by a strait slip of country sometimes suffering from its attack, while the tracts of land on either side remain comparatively free from the disease.

Cholera possesses none of the characteristics of the contagious or infectious class of diseases; it is not confined to cities or to camps; it appears suddenly—sweeps along the surface of the country, attacking the rich man in his insulated palace, and the poor in his lonely hut,—the robust European, and the effeminate Hindú,—wherever it finds either incapable of resisting its prostrating power; it pursues its course, until disturbed by some new motion in the atmosphere, and then vanishes, without leaving the power in its victims to communicate any form of the disease to their fellow-creatures. No instance has come under my notice, in which the disease was attributed to infection; and the contrary has been manifested, by the immunity of

the attendants and friends of the sick, who have crowded around the death-beds of their unfortunate comrades.

It is nevertheless admitted, that, while the Choleric influence prevails, passions, habits, and privations, such as fear, anxiety, fatigue, intemperance, and want, may so far predispose persons for the disease, that many cases will occur at one and the same time and place.

#### V. THE SPORADIC FORM OF SPASMODIC CHOLERA.

In the healthiest season and situation, a case of Spasmodic Cholera may now and then be met with, in which the disease assumes its very worst form, although the person had previously manifested no predisposition towards it. Is this in consequence of the development of a latent impregnation? or must we admit, that, by the local existence of the Choleric influence, an individual, to all human appearance in the most perfect health, may be taken, in a very few hours, from among thousands of lookers-on, who, amidst the delights of the healthy winter season in India, bury and forget the disease and its solitary victim!

#### VI. THE PREMONITORY SIGNS OF SPASMODIC CHOLERA.

In some few instances, there appears, for several hours, or even days, before the attack of collapsed Cholera, a dark crescent under the eyes, and a shrunken aspect of countenance; but of about a thousand men, with "countenances approaching to anxiety, lowness of spirits, without pain or sickness, or with little of either," detained a day in hospital for observation, during a late Choleric season, not one is remembered to have been seized with Spasmodic Cholera.

#### VII. THE DIAGNOSIS OF SPASMODIC CHOLERA.

To those who have seen this terrible disease, the present observation will appear superfluous; but to many, who have not had an opportunity of witnessing it, the comparison may be interesting.

## CHOLERA OF CULLEN.

## SPASMODIC CHOLERA.

Vomiting and purging of bile. Anxiety. Violent gripings.	Vomiting and purging of serum Collapse, Burning sensation in the abdomen.
Spasms of the abdominal muscles, communicated to the extremities.	Spasms of the extremities, seldom reaching the abdominal muscles.
The matter voided manifestly bile.	The excretions manifestly serous.
When the bile is evacuated, the disease ceases.	When bile appears, the disease is subdued.

The Cholera Morbus of 1669, as described by Sydenham, sect. iv. cap. 2, bears a much closer resemblance to the Spasmodic Cholera of the present time.

## VIII. THE SYMPTOMS OF SPASMODIC CHOLERA.

The disease generally makes its attack suddenly, with great prostration of strength, and purging of turbid, greenish water, attended or quickly followed by vomiting of a whey-like fluid; and these evacuations, at the commencement, contain portions of the natural contents of the primæ viæ. Spasms of the extremities, and universal collapsion, quickly succeed. The eyes lose their lustre, sink deep in their sockets, and are surrounded, in the direction of the orbicularis, by a livid circle; the skin contracts over the shrunken muscles; and the countenance altogether assumes a ghastly expression. The tongue is dry, or slimy, and soon becomes cold; the thirst is intolerable, and cannot be quenched; the urine is suppressed; a cold, watery sweat flows in large drops from the surface of the body; and the restlessness is indeed terrible to bear. The pulse is hurried or irregular, thread-like, often innumerable, and soon becoming imperceptible at the wrists and temples. The hands and feet become chill, shrivelled, blanched, and racked by cramp. After an uncertain time, the spasms and evacuations cease,—the breathing becomes hurried,—

the mind loses its equilibrium,—and increased restlessness and insensibility lead to the catastrophe, generally a very few hours after the attack.

A milder form of Cholera is ushered in by the symptoms common to inflammatory fever, with spasms of the extremities, often reaching the viscera of the abdomen. To this variety of the disease, collapse does not always succeed, or it is less urgent, usually followed by reaction and recovery, or the patient lingers several days.

#### IX. THE PROGNOSIS IN SPASMODIC CHOLERA.

When the tongue is cold, the hands blanched, shrivelled, and chill, the pulse innumerable, or altogether lost; when the spasms and vomiting suddenly cease, and the thirst and restlessness increase, with suffusion of the eyes, and insensibility,—death is near at hand. But when, with returning warmth of the extremities and tongue, there is a gradual cessation of spasm, while the excretions assume a biliary and feculent appearance, and the patient becomes more sensible to external impressions, hopes may be entertained of recovery.

#### X. THE TREATMENT OF SPASMODIC CHOLERA.

An endeavour to throw even a little light upon the management of this inscrutable and intractable disease, requires that it be considered under the two varieties noticed in the eighth observation, viz. :

##### *Cholera with Collapse, and Cholera with Excitement.*

Although the generalizing system of treatment has, in theory at least, become so common, that one authority pronounces bleeding the only remedy for the Cholera, and another declares that there is nothing to be depended upon but brandy and laudanum—yet we cannot force indiscriminately into practice remedial agents so opposed to each other in their effects, without feeling that we are abandoning

the laws of scientific medicine, and plunging into a chaos of empiricism, where pathological reasoning never entered.

In the collapsed form of Spasmodic Cholera, the stomach and bowels have usually been emptied of their natural contents before the physician arrives; and sunken features, cold-bedewed skin, cramps of the limbs, cold tongue, intense thirst, scarce perceptible pulse, vomiting and purging of whey-like or greenish fluid, and universal prostration, are the prominent symptoms. Here then the rational indications of cure are, to subdue the morbid nervous irritability, and to restore the circulating blood to its healthy standard; and practical experience has yet found nothing more powerful in fulfilling these indications, than the means about to be enumerated, viz.: the combination of calomel and opium, in the proportion of five grains to one, ten to two, fifteen to three, or even twenty to four, administered as early as possible, and repeated according to the urgency of the symptoms, and the frequency of its rejection by vomiting. Sulphuric æther, laudanum, and aromatic spirit of ammonia, in large and repeated doses, with camporated emulsion; magnesia, suspended in any stimulant aromatic water; and wine, brandy, and other stimulants of the same class, in sago gruel. Enemas containing the turpentine and castor oils, with, or without, asafœtida or laudanum. Blisters from hot water, cantharides, or mustard, applied to the abdomen, spine, calves of the legs, and soles of the feet; and stimulating the surface of the body by continued friction, and the application of hot bricks to the extremities, and to the hypochondriac regions. When the irritability of the stomach subsides, colocynth and calomel, castor oil and tincture of jalap, or any other cathartic which has the power of accelerating the flow of bile into the intestines, is administered, until the excretions resume a feculent and biliary appearance, after which recovery usually takes place, under the use of light aperient tonics, and the common attention to diet and regimen.

In the febrile form of Cholera, we are generally presented to a robust person, writhing in all the agonies of violent tonic spasm, especially excruciating in the calves of the legs; the patient's countenance is flushed and desperate, his pulse is full and frequent, and vomiting and purging are generally present. To hesitate in such a case, whether the abstraction of blood, or the administration of stimuli is the better practice, is in all probability to sacrifice the patient; for happily, this form of Cholera is more amenable to the remedial means which we possess. Blood is drawn until spasm relaxes, or excitement gives way, and the cure is accomplished by allaying the inordinate irritability of the constitution, and exciting the action of the hepatic functions. When, however, collapsion supervenes, stimulant and antispasmodic means are employed, as if the disease was in the first stage of the former variety.

There is yet another time in Spasmodic Cholera, when the abstraction of blood becomes indispensable, when the efforts of nature, and the powerful stimulants which have been employed to excite or assist these efforts, bring on a reaction in the system, which endangers the safety of the brain. In this case, a strictly antiphlogistic plan of treatment is requisite, keeping in mind, however, that the powers of life have been artificially excited, that the reviving constitution will not bear much depletion, and that the oppressed brain will be more effectually relieved by taking blood from the head, than by large general bleedings.

It would be superfluous to enumerate the means which have proved wholly inefficacious, or the palliatives which are usually employed in Cholera to alleviate the intensity of suffering, or to smooth the passage to eternity. But there are two remedial agents which seem to be entitled to a more extensive trial than they have yet met with in this disease: namely, the inhalation of diluted oxygen, or nitrous oxyd gas, and the application of the vapour of subliming cinnabar to the surface of the body.

The already too wide field of practice in this disease is extending; it is yet untrod by a master, and offers to the physician who may be called to labour in it, materials in one short season for an age of reflection.

XI. THE APPEARANCES AFTER DEATH IN SPASMODIC  
CHOLERA.

The victim of Cholera has scarce ceased to breathe, when the livor of decomposition begins to make its appearance, and at six hours subsequent to death, the body generally, when dissected, presents the following features. The vessels of the cerebral envelope are turgid with dark-coloured blood, and those of the brain are also more or less loaded, but the brain itself is firm and sound. The lungs are sometimes inflated, more frequently collapsed; their blood-vessels are full of dark-coloured blood, and the cellular structure blanched with water. The coronaries are gorged with black blood, and the heart and large blood-vessels contain more or less of a similar fluid. The liver appears of various sizes and colours in different subjects; its vessels are full of black incrassated blood, and the gall bladder is distended with viscid bile. The villous coat of the stomach is more or less suffused with an erethemic blush, most considerable about the cardiac orifice; this viscus contains a quantity of whitish turbid serum, with a fatty scum, and in the most rapid cases, food, (especially potatoes,) on which digestion had made no impression. The inner surface of the small intestines also exhibits a slight inflammatory tinge, and the whole tube contains more or less of the peculiar serous secretion, which has been so often mentioned, with a viscid pulp so adherent to the inner surface of the intestines, that it appears to be a partial solution of the villous coat. The spleen appears to undergo little change during the progress of this disease: in some instances it is sound, in others converted by chronic diseases into an inorganic mass. The urinary bladder is empty and



contracted, and the muscular structure of the whole body is firmer and darker coloured than in the healthy state.

The immediate cause of death appears to be congestion in the vessels of the brain.

#### XII. THE MEANS OF PREVENTING SPASMODIC CHOLERA.

A malady which thus sets at nought all human knowledge, affords but slender grounds for a prophylactic code; the attempt must therefore be imperfect, perhaps futile; yet the author of these observations, willing to render them as complete as his experience will admit, is induced to sum them up with the following suggestions.

1. In every parish, let the clergy, magistrates, and medical men form themselves into a board of health, on the first appearance of the disease.
2. Let the members of this board be empowered to visit all receptacles of the poor, and labouring classes, to enforce the distribution of a sufficiency of wholesome diet, with a due proportion of good beer; to dismiss the people from their employments before fatigue or exhaustion supervene, and to transfer the sick to a house prepared as an hospital.
3. Let them be empowered to suppress at once all petty haunts of debauchery, and to obtain for every family, however poor, a moderate allowance of wholesome malt liquor.
4. Let them endeavour to alleviate mental anxiety and discontent by every possible means.
5. And let them use every effort to discover the auxiliary supports of the disease, and to destroy them.