An inaugural dissertation on cholera : submitted to the consideration of the Honourable Robert Smith, Provost, and the Regents of the University of Maryland : for the degree of Doctor of Physic / by Robert W. Harper.

21

AN

INAUGURAL DISSERTATION

ON CHOLERA;

SUBMITED TO THE CONSIDERATION OF

The Honourable Robert Smith, Provost,

AND THE REGENTS

OF THE

UNIVERSITY OF MARYLAND.

FOR THE DEGREE OF DOCTOR OF PHYSIC.

BY ROBERT W. HARPER,
OF ALEXANDRIA, D. C.

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TO

DR. THOMAS SEMMES,

Of Alexandria, District of Columbia.

SIR,

I dedicate to you, this my first production, not from form; or for the sake of bringing it into notice, but for the high respect which you are entitled to as a friend, and the obligations I owe you as a preceptor.

I am, Sir,

Your most obedient, &c.

THE AUTHOR.

INTRODUCTION.

IT will, perhaps, here be supposed, that I should apologize for my production, but suffice it to say, it was not a voluntary undertaking: but one enforced by the laws of the institution. The reader may perhaps suspect something new, but I claim little originality in the production; my sole object being to collect the opinions of different authors on the disease which I have selected for the subject of my dissertation, and present them at one view to the reader.—If I have succeeded in this it is all I desire, as for criticism, I fear it not; for the character of the critic I despise, as much as I admire the candour and liberality of the enlightened few.

HISTORY OF CHOLERA.

THE disease called Cholera, sometimes written Cholera Morbus, is derived from the Greek word Χολη bile, and Ροη, a flux: the leading character of the disease being a profuse evacuation of bile, both upwards and downwards.

This disease being treated of by almost every author who has written on medicine; it must necessarily be supposed, I cannot offer any thing new; but merely give a history, and the opinions of the different authors who have written on the disease.

The leading features of Cholera, as well as the proper method of treating it, were known, and described in similar terms by Hippocrates, Celsus, Sydenham, Cullen, Cleghorn, Home, and Gregory; and it is also handsomely as well as accurately described by Dr. John B. Davidge, in his nosological work. Hipp. in effect, c. 28, n. viij ait Cholera medentur, si dolor adsit, andyna; ventri autem superiori et inferiori potiones humeotantes et balnea caleda corpus molientia capite excepta.

Celeus: ait, num simul et ejectio et vomitus est; praterque hæc inflatio, intestina torquenter, bilis supra infraque erumprit, primum aquæ similis, deinde ut in ea recens caro lota esse videatur; intendum alba, nonnumquam nigra, vel varia. Ergo eo nomine morbum hunc Χολέραν Graci nominarunt.

Sydenham defines the disease an immoderate vomiting, and discharge of vitiated humors downwards with great pain and difficulty. But does not mention the characteristic mark, viz. the vomiting and purging of bile.

Cullen, in his Nosology, thus describes it: Humores plerumque biliosi vomitus, ejusdem simul ejectio frequens; anxietas; tormina; surarum spasmata.

Cleghorn merely mentions the disease, and refers for the method of cure to Hippocrates.

Gregory describes it, Ingens simul vomitus et alvinus fluxus Cholera vocatur. Oritur a validæ tubi intestinorum irritatione, ubi nulla obstructio in eo est; plerumque a falle nimio, aut nimis ærcri, unde nomen habet.

Dr. John B. Davidge describes the disease in his Nosology, page 96, Gen. xxxviii. Alvi Fluxus sp. 1. Humores biliosi vel porracei vomitus, et simul ejusdem dejectio frequens; anxietas tormina; surarum spasmata; in infantibus febris.

SYMPTOMS.

The attack of this disease is most always sudden, there is nausea and vomiting, the bowels are affected with severe gripings, and frequent stools which first are watery as in diarrhæa; but in a few hours the matter discharged both upwards and downwards, appears to be pure bile.

Now the vomiting is increased, and the gripings also are considerably increased, and in consequence of the great irritation from the passing bile, the bowels are excited to spasmodic contractions, and this spasm is often communicated to the muscles of the abdomen and extremities.

The stomach is also affected with great pain and a sensation of heat.

The pulse becomes small and frequent. There is also a great degree of debility and faintness; even to syncope in consequence of the excessive evacuations; sometimes coliquative sweats, and coldness of the extremities, &c. to so great a degree.

Sydenham says, as frighten the bystanders, and kill the patient in twenty-four hours, if not relieved.* Although the patient is often so much reduced as to occasion great alarm, yet in our climate it seldom terminates fatally.

Though the pulse are quick, hurried and irregular in this disease, yet Dr. Cullen remarks, there is no proper pyrexia: but merely a feverishness from irritation, as it is relieved by remedies which quiet the spasmodic affections which attends the disease. The symptoms as described in Rush's Sydenham, page 443, are immoderate vomiting and a discharge of vitiated humours, with great pain and difficulty; a violent pain and swelling of the abdomen and bowels: heartburn, thirst, a quick small and irregular pulse; heat and restlessness; great nausea, sweating, contractions of the limbs, &c. coldness of the extremities, which destroys the patient in twenty-four hours.

A vomiting and purging concurring together or frequently, alternating with one another, the matter rejected both upwards and downwards, appears to consist chiefly of bile.†

An evacuation both upwards and downwards of bilious matter.‡

* Sydenham, sect. 10, chap. 2.

† Cullen, chap. x.

‡ Est rejecto meteriæ beleosæ superne et inferne.
Home Princep. Med. p. 162, sect. xiv.

CAUSES.

I conclude that the disease depends on an increased secretion of bile, and its copious effusion into the alimentary canal, and as in this it irritates and excites the motions mentioned: I infer that the bile thus effused in larger quantity is, at the same time also of a more acrid quality.

This appears likewise from the violent and very painful gripings that attend the disease, and which we can only impute to the violent contractions of the intestines that take place.

It has been stated that in warm climates and seasons, after extreme hot and dry weather a fall of rain cooling the atmosphere, seems especially to bring on the disease, and it is very probable that an obstructed perspiration may have a share in this, though it is also certain, that the disease does appear when no change in the temperature of the air; nor any application of cold has been observed.*

It may be produced by aliments, that easily run into the rancid or acid state, such as fat pork or meats fried, with lard or butter, sweet cherries, cucumbers, melons, grapes, &c. acrid purges, poisons, great anger, acrid bile.†

* Cullen's first lines of Practice, chap. x.

† Causæ sunt alimenta facillma in rancidam vel acidam naturam abeuntia, uti caro suilla, pinguedo, alimenta oleo vel butyro frixa, dulcia, cucumeres, melones, uvæ, cerasi, &c. mendicamentæ purgantia aeriora; venena ira vehemens, bilis aeris.

Home Princep. Medi. de Cholera.

A like disease may be produced by too active medicines, or eating too much of ripe fruit.*

Sydenham confines it to the month of August in England, although he acknowledges its existence in September. This disease can scarcely ever be truly said to be epidemic, although in certain cases and under certain circumstances, it occurs so frequently as almost to merit the appellation.

This disease appears so frequently after a fall of rain, especially when the weather previously had been warm and dry, as to lead us to believe with Cullen, that a checked perspiration was the cause.

In other cases however, it appears to raise spontaneously, or at least from no other cause than an excessive degree of heat, which perhaps produced the increased secretion of bile, which is the predisposing cause, and its stimulus the exciting. The heat acts, or appears to act, sometimes, merely as the predisposing cause, and substances taken as aliments, such as oysters, crabs, meats partially tainted, and malt liquors that have become acid; as the exciting cause.

DIAGNOSIS.

Cholera Morbus may be distinguished from dysentary and diarrhæa, the matter discharged both upwards and downwards, being pure bile. It can also be distinguished from cholera pictonum, by the evacuations, for in the latter, although there is a considerable quan-

* Quamvis ab aliis quoque acribus similis, affectio oriatur, veluti medicamento nimis forti, aut fructibus maturis nemia copia assumptis.

Gregory de Cholera.

tity of bilious matter, sometimes thrown off by vomiting: yet the bowels remain obstinately costive.

PROGNOSIS.

The prognosis is favourable; if the vomiting ceases, and the patient falls to sleep, or the disease runs seven days; unfavourable if the patient is much weakened, or the matter acrid or fetid, or the vomiting ceasing; the other symptoms continuing, nor any other disease of lesser moment succeeding.*

CURE.

The method of cure as handed down to us by Hippocrates, Celcus, Sydenham, Cullen, Cleghorn, Home, and Gregory, are very similar.

Let a chicken be boiled in about three gallons of water, so that the liquor may scarce taste of flesh.—The patient must drink freely of this, and at the same time clysters of the same are to be used, an ounce of the syrup of lettuce, porcelain, or water-lily may now and then be added, to the draughts and clysters. This manner of treatment is to cleanse the stomach and bowels, after which opeiates complete the cure. But if the physician be called after the patient has been

* Prognosis faurta si sessante vomitu, sequitur, somnus, vel morbus transgreditur septimum diem; infausta si æger debilis vel annosus, materia acerrima vel fætens, vomitus cesset, durantibus cœteris symtomatibus, neque tamen ulli morbo minori momento succurritur.

Home Princip. Med. sect. xiv.

exhausted, by the diseases he must use laudanum in large doses, until the patient is relieved.*

In the beginning of the disease, the evacuation of the redundant bile, is to be favoured by the plentiful exhibition of mild diluents, both given by the mouth, and injected by the anus: and all evacuant medicines employed in either way, are not only superflous, but commonly hurtful. When the redundant bile appears to be sufficiently washed out, and even before that, if the spasmodic affections of the alimentary canal, becomes very violent, and are communicated in a considerable degree to other parts of the body, or when a dangerous debility seems to be induced, the irritation is to be immediately obviated by opiates, in sufficiently large doses, but in small bulk, given either by the mouth or by clyster.

The disease is apt to return, to prevent which we should continue the use of opium, for some days after the attack, and as the debility induced by the disease favours the disposition to spasmodic affections, it is often useful and necessary, together with the opiates, to employ the tonic powers of the Peruvian bark.†

The method of cure as delivered by Dr. Potter, being very successful as well as new, I shall introduce it here: Emetics, says the Doctor, were formerly very much employed in this disease, and as may be readily supposed, the practice was very unsuccessful, for the idea that the bile must be evacuated, always increased the debility as well as the secretion, and often precipitated the patient into eternity. They should never be administered. Those who do not use emetics almost

* See Rush's Sydenham, page 443.

† See Cullen's first lines of Practice, page 511.

universally initiate them, by giving weak diluting drinks, to wash away the bilious matter. The two great luminaries of the northern and western worlds recommend them, and have enforced their opinions so formally, that it will probably not be in my power to subvert a treatment as dangerous in practice, as it is false in theory.

Dr. Cullen and Rush have recommended diluting drinks, and I believe the practice is universal. I have for some years, says the Doctor, deprived the patient as much as possible of all drinks, and when I have permitted them at all, it has been in small portions, and of a quality that were of the stimulant class: such as brandy and water, gin and water, and sometimes wine and water. Peppermint and cinnamon tea, but all moderately warm, so as to prevent the coldness from increasing the disposition to spasm, simple teas and warm water should always be avoided. A wine glass full of either of the drinks I have recommended, will be sufficient for a draught, and they should be permitted to quench thirst, and be repeated as seldom as possible. The only remedy to be relied on in this disease is laudanum, and when administered in sufficient quantity, and repeated so as to keep up a constant stimulus; it prevents the farther secretion of bile, and cures the disease. Nothing is necessary to wash it away, it will be discharged by vomitting or stool, so long as it is secreted, and nothing more is required.

A very large quantity is sometimes required; from one hundred to five hundred drops or more, but it will always succeed when properly administered, and in due time. Even opium should not be depended on always, because laudanum acts much quicker, and is therefore always safer.

There are however some remedies, that are useful

auxiliaries to laudanum in this disease. Certain stimulating applications to the epigastric region, and if a blister could act in time, it would contribute greatly to the relief of the patient, and should always be applied in dangerous cases, as it does not interfere with other remedies. In desperate cases calaptasms of mustard or garlic, would be excellent, although they are seldom recommended. Green mint macerated in ardent spirits is an excellent remedy. When the disease is not disposed to terminate in a few hours, and runs on for two or three days, or returns after an interval of some days, a blister should always be applied, and the laudanum continued as before directed, except in less quantity. It will always be best to use the laudanum, till sometime after the disease appears to have subsided for by doing so, a relapse is prevented.

THE END.

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