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Wednesday, August 8th, 1832, by Various**

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\*\*\* START OF THE PROJECT GUTENBERG EBOOK THE CHOLERA GAZETTE, VOL. I. NO. 5.  
WEDNESDAY, AUGUST 8TH, 1832 \*\*\*

**THE  
CHOLERA GAZETTE.**

[65]

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Vol. I.

WEDNESDAY, AUGUST 8th, 1832.

No. 5.

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***M. Petit's Treatment of Cholera.***

The principal indication which M. Petit, one of the physicians of the Hôtel-Dieu de Paris, proposes to himself to fulfil, in the treatment of cholera, is to keep up a constant impression upon the spinal marrow, and to change the phenomena of innervation. To effect this he places over the whole length of the spine a strip of flannel, wet with a liniment composed of an ounce of the essence of turpentine and a drachm of aqua ammonia, and passes slowly over it a very hot flat-iron. An instantaneous evaporation of a great part of the liniment results, which acts powerfully on the skin over the spine, and induces very speedily vesication. The heat returns to the skin, the cramps and vomitings disappear, the circulation is reëstablished, and the patient feels much better. The effects of this remedy are assisted by hot bricks to the limbs; by frictions to the body with a decoction of mustard, to which some aq. ammonia is added, and the patient is also made to drink copiously of balm and mint tea. A table-spoonful of the following potion is likewise given every hour:—R. Aq. distil. Tilleæ Europeæ; aq. distil. melissæ, āā. ℥ij.; tinct. opii, gtt. xx.; syrup. ether. ℥j. M. Finally, the patient is rubbed all over with a liniment composed of camphorated oil of chamomile, ℥ij.; laudanum, ℥ij.; liquid ammonia, ℥j.

M. Petit is said to have been more successful than most of his colleagues in the treatment of cholera. In a communication to the Academy of Medicine he states that under the above treatment two-thirds of his patients have recovered.

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***On Density of Population.***

Density of population in cities becomes a matter of extreme importance connected with the visitations of pestilential diseases. A too crowded population may of itself engender a pestilence, and must inevitably aggravate one should it prevail from other causes. Hence the necessity which occasionally arises of thinning the inhabitants of certain districts—an exigency which, like that of war, often subverts civil authority, and demands the exercise of the most arbitrary power. We have recently seen our New York neighbours compelled to thin the population in some parts of their city, and we may yet be forced to have recourse to a similar measure. Upon this subject there are some interesting calculations furnished in Hazzard's Register, (Vol. VIII. No. 5,) where may be found an interesting table, exhibiting the number of square feet in each ward of our city, together with the population at each census from 1790 to 1830, and the number of square feet to each inhabitant. From this table it appears that the increase in density of population throughout the city plot, has been in the following proportion during the forty years embraced in the estimate.

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In 1790	there was	1	person to	1755	square feet.
1800	"	1	"	1216	
1810	"	1	"	933	
1820	"	1	"	986	
1830	"	1	"	623	

Viewing the wards separately, we find that, in 1830, there was one inhabitant to every 313 square feet of superficies in the eastern division, and one to 979 of the western.

Eastern Wards.		
New Market ward had	1	to 236
Lower Delaware	1	243
Pine	1	248
Upper Delaware	1	318
Chesnut	1	341
Walnut	1	398
High	1	402
Dock	1	416
	Average	<u>313</u>

In the western wards, where there is a large proportion of unoccupied ground, the density varies from 840 to 1354 square feet to each inhabitant—the average being 979.

The propriety of legislative enactments limiting the maximum density of population, and the space allowed to be occupied by buildings, so as to ensure sufficient ventilation, &c. seems to us to be manifest. We shall take a future opportunity of offering some further remarks on this subject.

## ***Injection of Saline Solutions into the Veins.***

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(Continued from page 55.)

### **No. 4.**

*Letter from Dr. Lewins, to the Secretary of the Central Board of Health.*

*Results of the Injection Practice in the Drummond-street Cholera Hospital, Edinburgh.*

SIR,—You will receive from Dr. Latta, the details of two or three cases treated by saline injections. We have both been so much occupied to-day, that we have not had leisure to get our communications ready to be sent in the same envelope. We steal an hour from the time usually allotted for rest to write to you. In case Dr. Latta should omit to mention the circumstance, I beg to mention that his patient, Cousins, the woman who was injected to the amount of three hundred and seventy-six ounces, and who promised to do well, for a considerable time, was a person of very dissipated habits.

In the Drummond-street hospital six patients have been injected, and three recovered, or are recovering. In the three that died, extensive organic disease was found on dissection; disease that had existed previously to the attack of cholera.

I send herewith the report of two cases, treated by Dr. Craigie of this place, which, at my request, he furnished me to-day for the perusal of the Board.

I intended to have sent an account of an interesting fatal case, the only one in which the venous injection may be said to have fairly failed where it was fairly used; that I shall do to-morrow.

I have the honour to be, sir, your most obedient servant.

ROBERT LEWINS, M. D.

*Leith, May 27th.*

### **No. 5.**

*Details of Two Cases of Malignant Cholera treated by Venous Injection, by Dr. Craigie, of Leith.*

*No. 1. Case successful. 15lbs. injected at intervals in nine hours.*—Martha Smith, aged thirty-eight, a noted drunkard, thin and debilitated, in sixth month of pregnancy, admitted into the hospital at 8 P. M. May 16th, 1832.

It appears she had had vomiting and purging since Sunday morning, 12th inst. Cramps came on about four hours ago in both legs; great evacuations both upwards and downwards like dirty water. The countenance is now collapsed; eyes sunk; tongue cold; pulse imperceptible at wrists; very small in brachial artery; 124.

R. Muriat sodæ, ʒijj; Carbon sodæ, ʒi; Aq. calid. ℥vj. solve. Ft. Enema statim injiciend. Sinapisms to spine and epigastrium; let her be placed on heated tin mattress.

Nine A. M. Has a good deal of vomiting; is getting warmer; pulse now perceptible in right wrist; tongue warmer; she allows the enema to come away without giving notice to nurse. Saline enema as above, with the addition of white of eggs, to be repeated every half hour.

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Ten. Vomiting and purging of watery fluid, with slimy matter in it.

Half-past ten. Cramps have returned severe in left leg; pulse again imperceptible; urgent thirst, and constant vomiting. *Rep. enema et pulveres effervescentes.*

Half-past eleven. Breathing becoming much affected; extreme restlessness; cramps severe in legs, and every symptom of sinking. Let the following saline solution be injected into one of the veins of the arm.

R. Muriat sodæ, ℥i; Carbon sodæ, gr. x; Aq. calid. ℥iij, solve temp. 105° Fahr.

Noon. When about ℥i. had been thrown in, the pulse was perceived to flutter at the wrist, and gradually strengthened as the injection was proceeded with. By the same ℥iiss. had been injected, the countenance, which was before quite death-like, now beamed with the appearance of health, and she began to converse freely. Pulse 96, moderate. To have ℥i. gin in warm water with sugar.

Half-past one. The gin was immediately rejected. Pulse has again gradually become imperceptible, and respiration quick and laborious.

Two. Let the venous injection be repeated to ℥vij.

The effect of the injection, as formerly, was very striking. To see an individual who seemed *in articulo mortis* brought back, as it were, in so short a space of time to an apparently tolerable state of health, could not but astonish the beholder. Before the injection was finished the pulse had returned to a healthy fulness and firmness. Expresses herself much relieved; no purging, but vomits much serous matter.

R. Muriat sodæ, ℥ij; Carbon sodæ, ℥i; Alcohol. dilut. ℥i; Aq. calid. ℥iij. M. ft. enema statim injiciend.

Four. Enema retained about an hour and a half; surface of body now comfortably warm; she has not passed more fluid by stool than was thrown into the rectum.

Six. Has slept softly for an hour; the first sleep she has had for many days.

R. Subm. hydrarg. gr. v; Pulv. opii, gr. ss. M. sumat stat. et rep. 3tia quaque hora.

Nine. Complains much of vomiting and sense of weakness; countenance rather collapsed; breathing rather difficult.

Let ℥lxxx. be injected into the veins again gradually.

After the first few ounces were thrown in she complained of an acute pain at the epigastrium, and faintness, probably arising from the fluid being thrown in too fast upon the heart, or from the passing of a bubble or two of air, which may have got in from the inaccuracy of the injecting apparatus used. Be that as it may, the circulating system was so much affected, that the pulse, from being distinct though feeble, became quite imperceptible, but on stopping the injection for a few minutes the pulse gradually returned, and the pain abated. She expresses herself as always getting relief from the operation.

Eleven. Vomiting continues urgent.

App. emp. cantharid. epigast. Effervescing draughts occasionally.

May 17th. Has passed about ℥j. of urine, of natural appearance; this is the first she has made since she was brought in.

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From this time she went on gradually to improve, but stomach continued very irritable, and the matter vomited was bilious.

21st. Labour pains came on, and she was delivered of a still-born female child.

22d. Symptoms of phlebitis in right arm came on, proceeding from the wound upwards, but this yielded to the ordinary treatment, and she may now be considered out of all danger, though she is not yet reported cured.

THOMAS CRAIGIE, M. D.

*Leith, May 26th, 1832.*

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*No. 2. Case fatal—appearances on dissection.*—George Cousins, aged ten, was brought into quarantine at nine, A. M. 13th May, on account of his mother being ill of cholera. About an hour after admission began to vomit and purge, and it appears he has had diarrhœa severely all the morning. Pulse 102, extremely weak; complains much of sickness; countenance collapsed; areolæ rather dark under the eyes; voice very weak.

He had hot air-bath immediately, and got the following dose:—

R. Ol. ricini, ℥ss; Tinct. opii, gtt. xv; Aq. menth. pip. ℥iiss. M. ft. haust.

Half-past eleven, A. M. Draught retained; sickness has gone off; complains of heat of bath; let it be removed.

Noon. Has vomited some watery matter, with undigested potatoes in it, and again a rice-watery fluid with flocculi. He has now a considerable degree of jactitation; countenance more sunk, and great desire for cold water. These symptoms went on increasing in severity in spite of sinapisms to spine, effervescing draughts, calomel, and Dover's powder, warm water, enemata, &c., and head symptoms were now making their appearance.

Half-past two P. M. Pulse quite imperceptible, and has been so for an hour and a half; he lies quiet and drowsy, with eyes turned upwards; face bedewed with cold perspiration; hands and feet cold and very blue.

My colleagues, Drs. Combe and Lewins, saw him with me at this time, and concurred with me in thinking him not only beyond all hope of recovery, but likely to die *within an hour or two.*

From what I had seen of the resuscitating powers of Dr. Latta's treatment on the boy's mother this morning, by venous injection, I determined on giving it a trial, though this was a

case rather likely to bring discredit on the remedy than otherwise. The following solution, at temperature 102° F. was slowly injected into the median basilic by means of a common silver blow-pipe attached to Reid's enema syringe:—

R. Muriat sodæ, ℥i; Carbon sodæ, gr. x; Aq. calid. ℥vj. solve. T. 102.

Three P. M. A few minutes after the injection was commenced the pulse returned to the wrists, the blueness and coldness of the extremities gradually wore off; the countenance was much improved; and the whole fluid was injected within twenty minutes.

Half-past three P. M. He has now a healthy, blooming appearance; is sitting up in bed, and looking about him as if awoke out of a dream. Pulse 110, natural; extremities of good colour and warm; voice much stronger.

Half-past four P. M. Pulse has been gradually falling off since last report; is getting listless, and dislikes to be troubled with questions, breathing becoming laborious, and head symptoms more marked, with squinting to a slight degree superadded.

Seven P. M. Pulse again imperceptible; respiration quick and laboured; countenance collapsed; tongue and breath cold; says he is dying.

Let the venous injection be repeated to ℥ijj.

Half-past seven P. M. Pulse immediately returned, of natural strength and fulness, and continues so.

Nine P. M. Lies very quiet; pulse good; breathing more natural; surface of body covered with warm perspiration.

Ten P. M. Large watery evacuations from the bowels came on soon after last injection; the quantity cannot easily be guessed, but must have been considerable, as it is running through the mattress on the floor. Pulse scarcely perceptible; screams loudly like a child in hydrocephalus.

Eleven P. M. Pulse quite imperceptible; is sinking fast; venous injections attempted a third time, but desisted from as it was not productive of the first good effects. Both pupils much dilated. Died at two A. M. 14th.

*Dissection fifteen hours after death.*—On exposing the brain and spinal marrow, but before opening their investing membranes, the least pressure with the fingers on the middle of the hemispheres of the brain caused a remarkable undulating down to the middle of the back, showing the existence of a fluid beneath the membranes, and on opening them about two drachms of pure serum flowed out.

The surface of the brain was rather vascular, and the blood in the most minute vessels particularly bright. A few ecchymosed spots on its surface. All the other viscera were found healthy. The urinary bladder contained about half an ounce of urine.

THOMAS CRAIGIE, M. D.

*Leith, 26th May, 1832.*

## No. 6.

*List of Queries addressed to Drs. Lewins and Latta, by the Central Board of Health, London, relative to the preceding cases, &c.*

### QUERIES BY THE CENTRAL BOARD.

1. Were any of your patients bled previously to, or after the saline injections into their veins?
2. Were the evacuations by purging, vomiting, or perspiration, increased by the injections?
3. Did any of the patients submitted to the saline injection plan die; and if examined after death, what were the appearances?
4. Had the pulse at the wrist absolutely ceased, and for how long; or had blueness of the surface taken place, and to what extent, in any of your patients before the injection of the saline fluids; and how many of such patients recovered under that treatment?
5. Had suppression of urine been *perfectly* established, and for how long, in any of your cases previously to the saline injection, and what effect did that practice appear to produce on the urinary secretions?
6. What effect did the injections appear to have on the temperature of the patient?
7. Were the blood and evacuations analysed before and after the injections?
8. Did consecutive fever occur in any, and if so, in how many of your cases, whether successful or otherwise?
9. Was the quantity of the evacuations noted before and after the injections in any of your cases?
10. Please to give the details of two or three cases treated by saline injections, with age, condition of life, temperament, habits, &c., and particulars of such other treatment as may have been adopted in addition to the saline injections.

### ANSWERS BY DR. LEWINS.

1. None before. One to the amount of twelve ounces immediately after the first injection.
2. The evacuations by purging and vomiting, in most of the cases continued. In some of them the purging, the discharge from the bowels at least, was increased. Perspiration was increased in all.
3. Yes; no less than ten of the fifteen that have been injected up to the present day; but under such circumstances as do not detract from the general merits of the practice: this will be made evident by the history of the cases that will be sent by to-morrow's post.
4. Yes; even at the axilla in some of the cases, blueness of the surface had taken place to a considerable extent. Five of these patients recovered.

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5. Complete suppression, I think, in all except two, and for hours. In all the successful, and in some of the unsuccessful cases, the effects of the injection in restoring the secretion of urine were most evident.

6. The injections raised the temperature of the body; but in all the successful cases, where the veins were injected, the patients complained of cold soon after the injection.

7. Neither the blood nor the evacuations were analysed, but I sent some of the blood of a patient that had been injected by the veins, to Dr. Reed for analysis to-day.

8. The consecutive fever in all the patients who were injected, has been slight.

9. No; but they were excessive in most of the cases.

10. Question ten shall be fully answered by to-morrow's post.

ROBERT LEWINS, M. D.

*6 Quality Street, May 26th, 2 o'clock, A. M.*

### No. 7.

*Latest Communication from Dr. Lewins to the Secretary of the Central Board of Health.*

Sir,—The urgency of my present private and public duties prevents me from communicating more to you to-night than the following brief particulars of a case that occurred at the Leith Cholera Hospital yesterday:—

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A woman of about forty years of age, was admitted on Sunday evening at 7 o'clock. She was *pulseless*, even at the axilla, *sightless*, *cold*, and *blue*, over almost the whole body. *Respiration* very slow and irregular—in a word, she was all but lifeless. It was feared she would be dead before the operation of injecting could be commenced. Between 7 at night and 2 o'clock next morning, there were thrown in two hundred and eighty-four ounces, upwards of twenty-three pounds. The report of her situation at 2 on Monday morning, in the hospital book, is as follows:—"A change for the better, that appears almost miraculous, has taken place. The action of the heart is greatly improved; respiration not in the least laborious, but quicker than natural; pulse 120, small, but distinct. She can articulate distinctly; countenance natural; lips red; tongue moist and warm; she perspires freely; heat over the whole body natural."

A full report of this wonderful case shall be forwarded soon.

I remain, Sir, &c.

ROBERT LEWINS.

P. S.—In one, the pulse had ceased at the wrist eight hours before the injection. Dr. Alison had seen the patient eight hours before the operation, and the pulse was then imperceptible.

*Quality Street, Leith, May 29th, 1832, 1 o'clock, A. M.*

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## ***Origin of the Cholera at Quebec.***

*Board of Health, Quebec, June 25th, 1832.*

The undersigned, appointed by the Board of Health to investigate and report upon the introduction and treatment of the cholera, now existing in this country, have agreed to the following Report, which they respectfully submit.

The disease, on its first appearance in this city, exhibited all the characters of that commonly called the Asiatic or Spasmodic Cholera. It commenced about the 8th instant, in boarding houses and taverns in the Cul-de-Sac—a low, uncleanly, and ill-ventilated part of the city—crowded with emigrants of the lowest description, with sailors and other persons of irregular habits.

About the fourth day of the disease, (the 12th,) it showed itself in the more elevated parts of the city, among the wealthier classes of society, and persons of sober and regular habits, who could have had but little, if any, direct communication with the people among whom the disease had first appeared.

About the same date, (the 12th,) the disease was observed in various parts of the city, and in several neighbouring parishes, some few miles distant, having a constant intercourse with it.

The cases continued to increase in number until about the 16th or 18th, (being the 8th or 10th day of the disease,) when they began to subside, both in number and in violence—the disease still prevailing more extensively in the ill-ventilated parts of the city above mentioned. About the period of its greatest prevalence, (the 8th or 10th day of the disease,) the number of cases was estimated to be between 250 and 300, in the course of twenty-four hours.

The undersigned have not as yet been able to discover that any case of cholera has been landed from any vessel in the harbour, before nor until several days after its first appearance in the city.

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They deem it necessary to add, that some parishes in the neighbourhood of Quebec have continued free from the disease until lately, and that no case appears to have yet occurred at Three Rivers, an intermediate and populous town between Montreal and Quebec, where the steamboats with emigrants from Quebec, generally arrive.

Since the appearance of this malady, only two soldiers have been attacked in Quebec, and those while on duty—the rest being closely confined to their quarters.

The symptoms were the most violent at the commencement, and continued so until about the

16th or 18th, when they began to mitigate in severity, as the cases diminished in number.

In the treatment of this disease, recourse has been had to almost every remedy favourably reported of by European practitioners, and they all have had, for a time, their advocates—some preferring stimulants, others opiates, while others satisfied themselves with an intermediate plan of treatment—the whole of the medical practitioners with one accord agreeing, however, in the application of external stimulants, such as oil of turpentine, mustard, warm applications and frictions; calomel and opium have been much relied on by many. Practitioners speak with confidence of blood-letting at the onset of the disease, and before an approach to collapse has been recognised. Sweating has been much practised, and decidedly with advantage, when it is not allowed to run into that state of collapse indicated by a pulseless wrist, dejected countenance, blue extremities, tongue and breath cold, and a sunken voice, feeling as if it passed through the ears.

Some instances have been noticed, and also observed by our intelligent clergy, as well as by ourselves, where, in some mild forms of the disease, nature effected a cure by copious perspiration, encouraged by warm drinks and extra clothing.

The undersigned, with one accord, have found purgatives injurious, if used before perspiration or blood-letting had been resorted to, to allay the irritable state of the stomach and bowels; and then only the milder purgatives should be employed, such as calomel or blue pills, guarded with minute doses of opium, and carried off, after a few hours, with rhubarb, combined with soda and carbonate of ammonia.

Signed, Jos. Morrin, Health Commissioner; W. A. Hall, Resident Physician; F. X. Tessier, Health Officer; Wm. Lyons, Superintendent of the Emigrant Hospital.

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### ***Origin of the Cholera at Sunderland.* By T. M. GREENHOW, Esq. of Newcastle.**

The assumed capability of Cholera being conveyed by shipping from one country to another, on which our system of quarantine is founded, very naturally gave rise to the suspicion, when it first appeared in the port of Sunderland, of its having been imported from some place on the Continent, where it was known to prevail; and several stories were in circulation descriptive of the manner in which it had thus been introduced. I shall not here repeat any of these tales, suffice it to say that none of them have been in any degree authenticated. That the ships which were blamed for having committed the mischief, were found to have been from uninfected ports, their bills of health clean, and their crews healthy; in point of fact they were fairly acquitted of the charge; and I believe the conviction is now almost universally entertained by the inhabitants of Sunderland, medical and non-medical, that the disease did not reach that place from any foreign source whatever. It may be further stated that the first case of cholera which took place in this part of the country, was at a considerable distance from Sunderland, having been at a small village called Team, about two miles south-west of Newcastle. This case occurred to Dr. Alexander, of Newcastle, on the 4th of August, 1831. The details are given in the Appendix, No. I.; other cases occurred at Newcastle simultaneously, if not before the regular appearance of the disease at Sunderland; although want of experience of its true characteristics, and unwillingness to believe in the fact, induced medical gentlemen to endeavour to prove that these were not cases of the new disease; yet subsequent observation has sufficiently proved their identity, and, I believe, it is now generally admitted. Such were the cases of Oswald Reay, which occurred in October, of William Armstrong in the beginning, and of Robert Jordan towards the end of November. On the 7th December the next case occurred, that of Maria Mills, with which commenced the official reports of the Board of Health of this place. The strictest inquiries respecting the origin of these cases have failed to obtain the slightest evidence of their having arisen from any infected source, and seem to prove, in the most satisfactory manner, that, however the disease may have since extended itself, its commencement in the country was spontaneous, upon whatever causes it may have depended.

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### ***On Asiatic Cholera Morbus.* By PAUL M. EVE, M. D. of Augusta, Georgia.**

Believing it criminal to withhold from the medical profession anything on the Cholera Morbus at this moment, and conceiving it a duty to comply with the request of the editor of the American Journal of the Medical Sciences, I send the following observations which were made last summer while I was in Europe. I had felt a reluctance to make a further communication to the public on this engrossing subject, which was warranted and justified from my late situation in the Polish army; my time and attention having been almost exclusively devoted to surgical cases, and opportunities of investigating this disease having been comparatively limited. If it is thought, however, that my observations, imperfect as they are, and that my opinion, humble as it is, can in any way serve my fellow-labourers in the treatment of this modern plague, I most willingly and cheerfully present them my views on the subject.

As I have neither time nor inclination to write a long article, I will briefly state the principal symptoms of the Asiatic Cholera Morbus, the appearances on dissection, and then deduce from them the treatment. An attack is usually preceded by diarrhœa or by uneasiness in the stomach and bowels for some days, or is suddenly announced by vomiting and purging, commencing about three o'clock in the morning, when the temperature is lowest of the twenty-four hours; and is followed and accompanied by cramps or spasmodic contractions of the abdomen. There is great prostration of the animal powers; shrinking of the external parts, particularly of the features, which assume in many places as well as the fingers and toes, a leaden or purple appearance; a cold and moist or even a wet skin, conveying when felt, the sensation of touching a frog; great thirst; the tongue is blue and cold, or moist and partly covered with a white fur; the pulse is either imperceptible at the wrist or is quick, frequent, feeble and intermitting; respiration is slow and very difficult; the voice is much altered, questions and answers being made in a low whisper; the secretions, particularly of the kidneys, are diminished, except into the alimentary canal, where they are altered and augmented, without however any bile; purging and vomiting, sometimes one only, but generally both; first the contents of the stomach and intestines are discharged, and then a peculiar whitish fluid resembling rice-gruel or sero-albuminous matter; and lastly, cramps of the extremities, most frequently of the legs, and which may be compared to a bayonet piercing the calf or most muscular part.

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The appearances after death, were almost constantly the same. The external parts were very much diminished in size; the extremities, the nose, lips, eyelids, cheeks, &c. were of a bluish or livid colour, and the skin was wrinkled upon the hands and feet. The vessels of the brain in some subjects contained black blood, but generally there was nothing peculiar in the contents of the cranium. There was more blood in the spine, probably arising from position. The heart, lungs and large vessels were filled with a fluid resembling tar in colour and consistency. Two hours after death it was liquid and appeared like venous blood; but at twenty-four hours it seemed deprived of serosity and of the property of coagulation, and albuminous concretions were found in the heart. The stomach and intestines were either empty or contained matter similar to the vomitings and purgings; their coats were contracted and paler than in a natural state, or as was most frequently the case, presented all the varieties from congestion to sub-inflammation. The liver and vena portæ were distended with black blood, and the gall-bladder with tenacious, dark yellow, or green bile. In almost every case the bladder was found empty and contracted.

From the above symptoms and results of post mortem examinations, it would seem that the pathology of the cholera morbus may be explained by a want of oxygenation of the blood, which becoming surcharged with carbon is unfit to stimulate the heart to contraction, and hence the congestion upon the internal and vital organs at the expense of the surface and extremities. With this pathological view of the disease, and from the positive fact of there being a centripetal action of the blood, is easily deduced the principle of conducting its treatment—the equilibrium of the circulation must be restored or death will ensue. Now, mechanically speaking, there are two ways of affecting this object, either by introducing a power which will give the blood a centrifugal direction, or calling it back to the surface, by direct external applications. But the animal economy is governed by other as well as mechanical laws; the vital properties of the heart are oppressed, its energy is diminished, and its power of reaction impaired by an accumulation of blood, and this is peculiarly the case when the blood is black or not oxygenated; the stimuli or powers introduced to rouse its action would therefore be worse than useless; besides, we usually address the heart through the stomach, which is in such an irritable state as to reject even the mildest article. Upon the surface, on the contrary, there is a want of action, and stimuli are called for to excite the skin; to restore its lost or increase its feeble circulation, and thus draw the blood and heat from the internal parts of the extremities.

[76]

The plan of treatment which I have found most successful, consisted in varying the following means according to circumstances. Within the first four hours after an attack, bleeding will generally be necessary; but when prostration has ensued and when the surface is covered with cold sweat, leeches to the epigastric region, or cupping followed by warm fomentations or mustard plaster or blister, together with frictions and heat to the extremities, will afford the greatest and most speedy relief. Notwithstanding the various and multiplied articles of the materia medica which have been recommended, as opium, calomel, oxide of bismuth, cajuput oil, spirits, &c. to allay vomiting and purging and calm spasms, I must give my decided preference to dermoid applications, which invite the blood from the heart, lungs, liver, stomach, &c. the congestion of which produces these symptoms. I do not deny that there are cases which can be, and are relieved by medicines; but, since we possess no remedy which can drive the blood from the centre to the surface—since all internal medicines are apt to excite vomiting, one of the most painful, distressing and fatal symptoms of cholera—and moreover, since we possess means which can be easily managed and varied to suit circumstances, and whose action is plain and evident to the senses—I cannot forsake them to launch upon the sea of experiment and conjecture, in the treatment of this rapid disease. The language of those who advocate the administration of internal remedies, is to give so much of a mixture or so many pills, and if they produce *vomiting*, repeat the dose; but if a cure is to be effected by relieving the symptoms, why give those medicines which excite or aggravate them? An infusion of peppermint, or the oil or essence of this plant, with a few drops of laudanum, in a little warm brandy and water, is what I have found best adapted for internal use; and even this should be prohibited when it produces vomiting. This symptom is often so distressing and so easily excited, that the stomach will reject whatever is presented to it. In such cases, I rely upon the horizontal position, perfect rest, and heat and frictions to the abdomen and extremities, without administering any thing internally. The warm bath I have known to be of great service, but the time necessary to prepare it and the exposure of

the body to the air, are serious objections to its general employment. The same will not hold good in relation to the vapour bath, where the patient can be kept continually warm. Excessive thirst is best relieved by cold gum water, or by a piece of ice dissolved in the mouth.

Having enjoyed an opportunity of comparing the practice of the English, French, German and Poles, while stationed at Warsaw, in the months of May, June, July, and August, of the past year, and having experienced personally the disease, I feel some confidence in recommending the above treatment of the Cholera, to the American practitioner of medicine: and in support of its correctness and superiority, I will state that at Wisnia, a town of Gallacia, out of two hundred and forty persons attacked with it who were subjected to cutaneous frictions, and to the internal use of only an infusion of chamomile and peppermint *two alone died*.

To prevent an attack of cholera, cleanliness and sobriety ought to be most rigidly observed. All sudden or great impressions upon the system, as changes in the temperature of the air, cold and moisture, or emotions of the mind, excessive joy, fear, and the depressing passions, should be carefully avoided. The body to be kept moderately warm, a belt of flannel is recommended to be worn; and the mind calm, and confiding in a protecting Providence. The diet should be regular, and without any material change in the accustomed repasts. Emetics and purgatives are to be avoided, and certain articles of nourishment which are known to predispose to colic, or cholera affections; these are bad beer, sour-crust, cabbage, salad, beans or peas, spinage, cucumbers, pickles, unripe sour fruit, musk and water melons, cold meats, sour milk, &c. Good soups, beef, mutton, veal, fowls, eggs, Irish potatoes, bread, and tea in preference to coffee, should constitute the principal food of those who inhabit an infected district.

[77]

After all that has happened to admonish us, we can still hope that the cholera may not reach the Southern States. Its general course has been north-westwardly; from Calcutta it reached the Russian Empire; from Constantinople it passed to Great Britain. Although it existed in Hungary and in Vienna, still Lombardy, Switzerland, and Italy, have escaped; and the same thing is applicable to France and Paris, in relation to Spain and Portugal. It has not even existed in cities of the South of France, and Quebec and Montreal are nearly in the latitude of Paris; besides, these two Canadian cities are remarkable as being the most filthy and ill-ventilated of America. If it has progressed in a north-westwardly direction, and if it has avoided a southern latitude in Europe, why may we not escape its dreadful ravages? Let us, however, be prepared to meet it, that if it ever does come, we may be ready to cure the distressed, to relieve the afflicted, and to lessen the sufferings of the dying victim.

*Augusta, June 30th, 1832.*

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## ***Non-Purgative Salts in Cholera.***

The following statement, relative to the treatment of cholera in the prison at Cold Bath Fields, are interesting, and are said by the editor of the London Medical Gazette, to be entitled to entire confidence as to its accuracy.

“The first twelve cases occurred in the vagrant’s ward, and the patients were attacked soon after some prisoners had been admitted from St. Giles’s, and other infected districts. The first case that was reported as cholera, occurred on the 5th of April. This man was suddenly attacked, and died after a very short illness with all the symptoms of the prevailing epidemic.

“When the first cases occurred, there were in all about twelve hundred persons in the prison; but, up to the beginning of this month, they were not afflicted with bowel complaints, nor, in fact, with any other epidemic disease, being as healthy as they generally are at that season of the year.

“The first four cases were treated in the common way, with brandy and opium, an ammoniated mixture, ginger, sinapisms to the region of the stomach, the hot air-bath, &c. &c.; and all of them died after a short illness.

“Since the 4th of April, up to this date, (April 17,) forty cases in all have been under treatment. Of this number, nineteen were admitted into the Observation ward with the premonitory symptoms of cholera. All of these had bowel complaints and suspicious ejections; some of them complained of severe pain in the abdomen, sickness of the stomach, and in several cases these symptoms were attended with cramps, chiefly in the lower extremities. The whole of them were immediately treated by Mr. Wakefield with non-purgative saline remedies, recommended by Dr. Stevens, and in general they were convalescent in one, two, or three days, from the commencement of this practice. From this we may infer, that where the disease is attended to early, and *properly treated*, the state of collapse may be prevented in nineteen cases out of twenty.

[78]

“We must state, however, that as the numbers increased, it became necessary to dismiss those that appeared to be least ill, on purpose to make room for others. Of those that were dismissed as convalescent, two were reādmittted soon after in a state of collapse, and though every attempt was made to save them, yet they both died after a very short illness, with the symptoms of cholera in its most virulent form. With the exception, however, of the two that died, none of the cases, (seventeen in number,) were reported to the Central Board, partly, we believe, from a wish to avoid spreading alarm with respect to the prison, and partly because the disease was checked in the beginning; consequently, the patients had not *all* the symptoms of cholera, such as occur in the worst cases, or in the last stage.

“In addition to the above seventeen which were not reported, there were twenty-one cases where the symptoms of cholera were very distinctly marked. Of this number, four of the early

cases were treated in the common way, with diffusible stimuli, &c. &c., and all of them died after a short illness. These, with the two cases of relapse from the Observation ward, make in all six deaths. Mr. Wakefield, however, having lost all faith in the common treatment, changed the practice:—at the request of Dr. Stevens, the other fifteen cases were put under the saline treatment, and all of them recovered.

“When the patients were first admitted, the following powder was immediately given, either in half a tumbler of tepid water, or occasionally in a little thin, clear, beef-tea:—

“Supercarbonate of Soda, ʒss. Muriate of Soda, ʒj. Chlorate of Potass, grs. vii.

“The above was given every hour, and continued until the patients were recovering from the state of collapse; after which it was diminished in frequency, in proportion as the reaction increased.

“In all these cases, the outline of the practice was nearly the same; but in several instances the treatment was varied according to circumstances. When the stomach, for example, was extremely irritable, it was found that the carbonate of soda, given by itself, or the tartrate of soda, in a state of effervescence, were the most effective remedies that could be used on purpose to allay the irritation, so as to enable the stomach to retain the stronger salts.

“During the progress of the disease, an enema, with a large table-spoonful of muriate of soda, dissolved in warm water, was administered with or without sugar, starch, &c. every three or four hours, at as high a temperature as the patients could well bear it. Sinapisms were also applied as early as possible to the region of the stomach, betwixt the shoulders, &c.; and in the cold stage, frictions were also frequently used with warm towels. Of the seventeen cases that were treated in this way, two died, (namely, the two patients who were readmitted in a state of complete collapse,) making in seventeen cases, two deaths, and fifteen recoveries. But including the whole of those that were under the saline treatment, the total amount is, in thirty-six cases, two deaths, and thirty-four recoveries.

“The cases in question were under the care of Mr. Wakefield, the medical attendant of the establishment, and during his absence they were attended to by Mr. J. Wm. Crooke, who kept notes of the cases, and saw that the medicines were properly administered. We may add, also, that Mr. Wakefield, with a degree of fairness which does him great credit, invited Dr. Stevens to attend along with him to witness the effect of the saline treatment, which has here, we may say, for the first time, been fairly tried in this disease.

[79]

“We can also state, that the cholera made its appearance about the same period amongst a small colony of Italians, who live in a narrow lane within a few hundred yards of the prison. Of these, eleven were attacked. The three first cases were treated by bleeding, brandy, and opium, all used at the same time, and they all died. The other eight cases were attended by Mr. Whitmore, a surgeon in the neighbourhood, who, having witnessed the effects of the saline treatment in the prison, adopted it. All his patients speedily and completely recovered, except one, who, on the 13th, was so ill that he was not expected to live many hours; even he, however, is now in a state of convalescence. *Thus there have been in all fifty-three cases, seven of which were treated in the common way, with diffusible stimuli; and out of this number seven died; while, of the forty-six that were under the saline treatment, there were two deaths and forty-four recoveries.*”

## ***Cholera at New York.***

The decrease of cholera at New York during the past week has been exceedingly slow; nevertheless, there can be no doubt that the disease has passed its zenith in that city.

August 1st,	No. of cases,	92	deaths <sup>[1]</sup>	53
2d,		81		56
3d,		90		38
4th,		88		54
5th,		96		39
6th,		101		51
7th,		89		28
	Totals,	<u>637</u>		<u>319</u>

[1] These are taken from the city inspector’s reports of burials.

Whole number of deaths in New York during the week ending 4th August, according to the city inspector’s report, 580, of which 383 were from malignant cholera, 1 cholera morbus, 5 diarrhœa, 8 dysentery, 30 cholera infantum, 2 inflammation of the bowels, and 10 unknown.

The whole number of cases of malignant cholera from the 1st July to 7th August inclusive, reported by the Board of Health, 4497; number of deaths as reported by the same, 1799. The report of the City Inspector, which is manifestly the more accurate, gives the number as 2295.

## ***Health of Philadelphia.***

[80]

The epidemic whose approach we confidently announced a month since, is now prevailing

among us, and appears as yet scarcely to have attained its maximum. The public mind having been prepared to expect its visitation, and quieted, to a considerable extent, by the preparations made for its reception, there has been little excitement, and certainly none of that panic which has elsewhere been so favourable to its ravages.

Number of cases reported August	2d,	40
	3d,	35
	4th,	45
	5th,	105 <sup>[2]</sup>
	6th,	136
	7th,	136
	8th,	114
Total for the week,		611

[2] Forty of these cases were in the Arch St. Prison, and not being reported until the next day, the number of cases appears from the report of the Board of Health to be, August 5th, 65, and on the 6th of August, 176.

We hope in our next No. to be able to present a tabular view of the cases, showing the number each day from the commencement of the epidemic, the situations in which they have occurred, &c.

The following table exhibits the whole mortality, and also that from bowel complaints for the 1st week in August for five successive years.

- 1828. 1st week, ending August 2d. Whole mortality, 129; of which, the — deaths from cholera morbus were, adults, 3; children, 32; Total, 35.— Diarrhœa, adults, 2; children, 1; Total, 3.—Dysentery, adults, 0; children, 5; Total, 5.—Total from bowel complaints, 43.
- 1829. 1st week, ending August 8th. Whole mortality, 89; of which, the — deaths from cholera morbus were, adults, 2; children, 18; Total, 20.— Diarrhœa, adults, 2; children, 2; Total, 4.—Dysentery, adults, 1; children, 2; Total, 3.—Total from bowel complaints, 27.
- 1830. 1st week, ending August 7th. Whole mortality, 80; of which, the — deaths from cholera morbus were, adults, 0; children, 21; Total, 21.— Diarrhœa, adults, 1; children, 0; Total, 1.—Dysentery, adults, 1; children, 1; Total, 2.—Total from bowel complaints, 24.
- 1831. 1st week, ending August 6th. Whole mortality, 111; of which, the — deaths from cholera morbus were, adults, 0; children, 23; Total, 23.— Diarrhœa, adults, 1; children, 5; Total, 6.—Dysentery, adults, 1; children, 3; Total, 4.—Total from bowel complaints, 33.
- 1832. 1st week, ending August 4th. Total mortality, 243; of which, the — deaths from cholera morbus were, adults, 1; children, 30; Total, 31.— Malignant cholera, adults, 81; children, 3; Total, 84.—Diarrhœa, adults, 5; children, 4; Total, 9.—Dysentery, adults, 3; children, 2; Total, 5.—Total from bowel complaints, 129.

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