so every day. It is already attracting the attention of the legislature. In the army, it is an indispensable requisite; in private practice, it is of paramount importance, because the validity of vaccination depends on the skill and care of the vaccinator.

Brighton, March 16th, 1853.

SKETCH OF THE CHOLERA EPIDEMIC WHICH PREVAILED AT SOUTHAMPTON IN THE SUMMER OF 1849.

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(Read before the Southampton Medical Society, Feb. 1st, 1853.)

BEFORE entering upon the more immediate subject of this paper, I deem it right to make a few introductory remarks upon the town in which we live.

TOPOGRAPHY. Southampton is situated in 50 deg. 54 min. 34 sec. N. lat., and 37 min. 7 sec. W. long. It occupies a tongue of land, about a mile in breadth, abutting towards the S.W., upon a small inlet of the sea, called the Southampton Water, which flows and ebbs N.W. and S.E. It is bounded on the east by the Itchen river; on the west, by a bay of the inlet; and on the north, by a wooded common, gradually rising to an elevation of 234 feet. It is, for the most part, built upon a bed of gravel, beneath which is argillaceous deposit. The sea in its ebb, especially at spring tides, recedes to a considerable distance, exposing an extensive surface of muddy sand, the appearance of which has been considered by some metropolitan physicians to be a *prima facie* evidence against the salubrity of the town; but this charge is completely disproved by the fact, that the exhalations at low water by the solar rays have never been productive of any endemic febrile disease whatever, whether intermittent, remittent, or continued. Indeed, the flow of the tides, and the ventilation almost always accompanying it, will probably ever prevent such a result; in confirmation of which, there are not many towns in the United Kingdom, with an equal amount of population, where so few cases of such fevers are registered. It is true, that the registrar's books show a high rate of mortality in its crowded districts, especially in the parish of St. Mary; but it is clear that this has not been caused by malarious exhalation at ebb-tides, for the same registry shows that, in the less crowded districts, parts of which are also contiguous to the water, the rate of mortality is not higher than that of some of the most healthy towns in Great Britain. The cause, therefore, must be sought for elsewhere; and doubtless it may be found in the rapid increase of population which of late years has taken place, from the extensive establishments connected with railways, docks, and steam-navigation companies.

POPULATION.

Increase in decennial periods.

In 1801, the population was 7,629	
1811,	9,260 . . . 1631
1821,	12,913 . . . 3653
1831,	18,670 . . . 5757
1841,	27,103 . . . 8433
1851,	34,092 . . . 6089

It will thus be seen that, in a cycle of twenty years, the population of the town has been nearly doubled; and, taking the parish of St. Mary alone, the increase is still more remarkable; the amount in 1831 being 8,530, and 21,012 in 1851! These statistics of the population have been introduced to account also for the great difference between the two choleric epidemics which invaded Southampton, as regards both their extent and mortality.

ORIGIN AND PROGRESS OF CHOLERA. The pestilential cholera of the nineteenth century* commenced at Jessore,

a populous town in the Delta of the Ganges, in 1818, from which point it spread in every direction throughout India and Asia, confining itself to that quarter of the globe till 1831, when it took a north-western course through Russia, Poland, Austria, and Prussia; ravaging Vienna, Berlin, and Hamburgh, in its way to Great Britain, where it made its first appearance at Sunderland on the 26th of October, 1831; but no cases were reported in London till the middle of February 1832.* The disease first invaded Southampton in the summer of 1833. As it was ushered in by a case which terminated fatally in a few hours, a great panic was caused, especially as cholera prevailed in many parts of the kingdom. The patient was a poor girl of the age of puberty, residing in Russell Street, St. Mary's. Her friends attributed the attack to a meal of cockles, which might indeed have been an exciting cause; but the symptoms were too characteristic to be mistaken. Every attention was paid which the urgency of the case required; and her medical attendant remained at her bed-side till she sank from exhaustion under incessant vomiting and purging of rice-water evacuations. The bedding, bed-clothes, and everything that could be the means of propagating the disease, were burnt by the order of the municipal authorities; and the house was cleansed and whitewashed. Whether from these precautions or not, the disease did not spread; nor did it prevail to any extent in other parts of the town; so that the number of cases were not probably more than twelve, nor the deaths above four. The population at this period may be estimated at about 20,360. From this time the town was free from cholera till the year 1849, when it was again visited by the disease, and far more severely than before. The second epidemic commenced on the 17th of June, and terminated on the 21st of September, at which period the population had increased 25.78 per cent., and amounted to about 30,000.

METEOROLOGICAL REMARKS. During the prevalence of the disease, Dr. Drew's Meteorological Register gives the following results; and the public are much indebted to this gentleman for establishing and superintending a register at Southampton, which, for its accuracy and completeness, is probably equal to any in the kingdom.

Barometer.

	Date.	Highest.	Date.	Lowest.	Mean.	Monthly Range.
June	3rd	30.215	10th	29.633	29.988	.582
July	12th	30.344	24th	29.479	29.934	.865
August	20th	30.366	13th	29.629	29.997	.737
Sept.	19th	30.319	30th	29.198	29.886	1.121

Thermometer.

	Date.	Highest.	Date.	Lowest.	Adopted Mean.	Monthly Range.
June	24th	87.6	11th	42.5	60.1	45.1
July	16th	83.	1st	42.6	60.3	40.4
August	8th	77.6	17th	41.6	60.7	36.
Sept.	5th	76.6	19th	37.6	56.6	39.

N.B. On the 11th of July, the thermometer in the sun, at 2 p.m., was 120; in August, 104.

Hygrometer.

	Degree of Humidity.	Inches of Rain.
June	.731	0.992
July	.775	5.128
August	.820	0.451
Sept.	.852	4.531

Wind.

Force—6 signifying a Gale.

June	1	4th and 8th.	Thunder.
July	3	26th.	Thunder.
August	2	11th and 12th.	Lightning.
Sept.	2	1st.	Thunder and lightning for 2 hours

The principal points to be noticed in the foregoing results are, 1st, that the temperature of the atmosphere was

* That the very same disease was known as early as the first century, the following quotation from Celsus will clearly show:—"Primoque faciendum est cholera; quia commune id stomachi atque intestinorum vitium videri potest. Nam simul et dejectio et vomitus est. praterque hæc inflatio est, intestina torquentur, bilis super infraque erumpit, primum aque similis, deinde ut in ea recens caro lota esse videatur, interdum alba, nonnunquam

nigra vel varia. Ergo eo nomine morbum hunc *cholera* Græci nominant. . . . Sæpe etiam crura manusque contrahuntur, urget sitis, animæ deficit: quibus concurrentibus, non mirum est si subito quis moritur. . . . Si post suppressum cholerae febricula manet, alvum duci necessarium est: tum cibis vinoque utendum est."—Liber iv, ch. xi.

* Copland's Dictionary.

comparatively high; 2nd, that, as the epidemic declined, the thermometer fell in fourteen days from 76·6 to 37·6; and thirdly, that, from June to the end of September, the weather was remarkably still, not amounting to 1 of the above scale: but whether these facts had any influence over the epidemic, one way or another, it is difficult to determine.

MORTALITY. The registered number of deaths from this epidemic was 239; but to state with accuracy in what proportion the deaths were to the number of cases treated, is scarcely possible. I have, however, obtained from a gentleman who attended the largest amount of parochial patients, some statistical facts, which will enable me in some degree to make the attempt. He states that, including incipient or diarrhoeal cases, he noted down 1,500 as having been attended by himself, and that of these, 40 died, or 1 in 37: 37×239 will give 8,843, which is probably about the number of cases, of all grades, that were under treatment by the medical gentlemen of Southampton. His note-book furnishes also the following particulars: that the epidemic was most malignant from the 14th of July to the 14th of August, and that, during that period, he attended 360 cases, of which he considers the cases of diarrhoea and true cholera were about equally divided; that of the latter, viz., 180, 90 ran into collapse; that of these, 40 died, or 1 in 2·25; that of the whole of the cases of true cholera, the deaths were one in 4·5, and of all attacked, 1 in 9: but, in the approach and decline of the disease, the deaths were not more than 1 in 37.

It is important to remark that, whilst the disease fearfully prevailed amongst the inhabitants in crowded and ill-drained districts, it attacked but few of those who inhabited the less crowded localities. This fact greatly strengthens the opinion, that the extent and mortality of this epidemic was not the result of malaria from the bed of the river, but of an over-crowded state of the dwellings of the working classes; otherwise, the first epidemic must have been, in proportion to the population, as severe as the last.

DESCRIPTION OF THE DISEASE. The epidemic of 1849 began at a beer-shop in the middle and south side of Bridge Street, which was at that time a close, narrow, and ill-drained thoroughfare. The patient was a married female, of stout make, about forty years of age, and the mistress of the house. The attack was most severe and alarming, and came on after a supper from mackerel. She was promptly visited by her medical attendant, and, by his unremitting efforts, the judicious use of the hot-air bath, and decided doses of calomel and morphia, she was brought out of collapse, and the severity of the symptoms controlled. I was requested to see her early in the attack; and, as the house was extremely close and crowded, we advised her removal to an airy situation a short distance from the town, which was accomplished without delay. Fever of a low character followed the suppression of the cholera, which was complicated with gangrenous erysipelas of the inferior part of the abdomen, and upper and internal surface of both thighs, from which also she eventually recovered, although the suicide of her husband, in the midst of her illness, rendered her case still more critical.

Cholera was not communicated to any one who waited upon or nursed her at either house; but at the same time it broke out in many other parts of the town, till the disease, associated with diarrhoea, became very general.

At a meeting of the medical men, it was found convenient to divide the symptoms into four stages—the premonitory diarrhoea, the serous flux, the partial collapse, and the complete collapse.

1. *Premonitory Diarrhoea.* This was characterized by head-ache, loss of appetite, nausea, and oftentimes vomiting, relaxed bowels, with or without pain, and a discharge of a thin faecal matter, generally of a pale colour, occasionally mingled with bloody shreds, and remarkably fetid. This stage lasted for some days, or only a few hours.

2. *Serous Flux.* In this stage there was increased vomiting and purging; pumping out profuse liquid evacua-

tions, sometimes like dirty barley-water, but more commonly resembling water having a ground-rice sediment. These were without faecal smell. There was then also a diminished or suspended secretion of urine, intense thirst, especially for cold drinks, agonizing cramps, a failing pulse, and an anxious aspect. This condition, unless timely checked, did not last long before it ran into partial collapse.

3. *Partial Collapse.* This period of the disease was marked by a dark colour of the skin, but more commonly by a leaden or bluish tint, senile expression of the countenance; sinking of the eye-balls into the bottom of the orbits; atrophied and shrunken state of the body, especially of the fingers; imbecility of the voice; pulse at the wrist scarcely perceptible; diminished temperature; clammy sweats; laboured breathing; and constant changing of position from one side to the other.

4. *Complete Collapse.* There were withered aspect; eyes dim and half closed; the surface of the body, particularly of the face and extremities, as cold as marble, and covered with a damp sweat; no pulse at the wrist; gasping respiration, and a moribund condition; but the intellect was generally clear to the last.

It is not intended to be understood that the disease was generally found to observe such deliberate and distinct grades. In many cases the patient was at once brought into the second stage; and in some, whilst engaged in his ordinary concerns or employment, with scarce any warning he became pulseless, cold, and shrunk into a fatal collapse.

The secondary fever of cholera was not constantly observed in this epidemic. Those who were exempt from it became speedily convalescent. In those affected by it, the febrile symptoms were of an asthenic character, requiring support and great attention to conduct them safely through the sequelae.

CAUSES. The pathology of cholera, and, indeed, of pestilential diseases generally, is but imperfectly understood. They all appear to select different organs of the body for their respective development. Thus small-pox selects principally the external and internal surfaces; plague and yellow fever, the brain; influenza, the respiratory passages; cholera, the stomach and small intestines; and dysentery, the large intestines; and all, by such selection, assume distinctive characters.

Sporadic cholera is doubtless sometimes produced by accidental causes, such as unwholesome and poisonous food, etc.; but it is supposed that *pestilential cholera* is derived from some abnormal condition* of the atmosphere, and that a specific poison from this source enters the body through the air-cells of the lungs, where it corrupts or destroys the vitality of the blood, embarrasses the respiration, weakens the force of the heart's action, and rapidly diminishes the animal heat, at the same time relaxing the oscula of the mesenteric veins, and permitting the escape of the serum of the blood into the intestinal canal, and throwing into vehement spasm, and utter disorder, the ganglionic centres. This description, however, is merely theoretical, drawn from the evidence of symptoms, not based upon appearances observable after death; indeed, the facts presented by morbid anatomy go but little way in explaining the pathology of cholera. If death take place very early in the attack, scarcely any change is observable in the internal organs except as to their colour; and if later, the principal changes which present themselves are, a tar-like consistence of the blood; the surface of some portions of the mucous membranes, especially that of the small intestines, coated with a whitish, opaque, viscid substance, of a muco-albuminous character; and the mucous membrane of this part of the intestinal canal occasionally assuming an unnatural whiteness, and so soft and pulpy, as to be easily detached from the subjacent coat. The abdominal viscera are also congested with dark-coloured blood, which is sometimes also

* Sydenham has handed down to us the "epidemic constitution" of certain consecutive years, to show the diseases which prevailed during each period; and if such observations were made at the present time, with the improvements we possess, our knowledge of pathology in pestilential disease would be greatly increased.

found in the left side of the heart. From these appearances, Dr. Turnbull Christie,† who has written a valuable treatise on this subject, was led to believe that cholera is a disease of the mucous membranes, and, in fact, a catarrh of the intestines; but as neither the symptoms nor the morbid appearances after death are at all analogous with catarrhal affections of other mucous membranes, such an opinion is not tenable. Both are doubtless the peculiar effects of a morbid aerial poison; but what are its essential elements, and from what pestiferous source it is primarily derived, will probably be long withheld from the grasp of human intellect.

CONTAGION. Much has been adduced as to cholera being a contagious disease, on both sides of the question, without arriving at any settled conclusion. This difference of opinion in medical men of equal talent and observation is somewhat remarkable; and yet, I think, it admits of an easy explanation, by assuming two examples. In the first, a physician is called to a member of a family, resident in a locality where the atmosphere is impregnated with choleric poison. His symptoms are those of cholera. In a few days a brother, whilst attending his relative, is attacked; and shortly afterwards, several other members of the family. A neighbour, also, who had called to inquire, becomes affected in the same way. Such a series of attacks would reasonably induce almost any medical attendant to infer that the disease was communicated from person to person, and to pronounce it fearfully contagious.

In the second example, another physician, practising in the same district, is called to attend several cases of cholera in the same day, which could have had no communication whatever with each other; he, therefore, sees the propagation of the disease in quite a different light, and pronounces it at once to be epidemic, and not contagious at all. It must be allowed that both opinions are based upon very strong, if not equal, grounds; and hence it is that the disputants defend their respective positions with so much obstinacy. There can be no doubt that contagionists may, in most epidemics, adduce proof of the morbid elements of cholera having been propagated from one patient to another, either by the vapour of dirty linen in the act of being washed, or by human exhalation in crowded, ill-ventilated apartments; for surely there is nothing unreasonable in asserting that cholera, like many other epidemics, may, under circumstances favourable to such a result, reproduce itself. In my own opinion, however, it ought not to be classed with diseases avowedly contagious, because, by sanitary precautions, such a result may be, in great measure, prevented; and this opinion is supported by the fact, that the Southampton epidemic could not be traced to any contagious source whatever; that it was not communicated to any persons who attended the incipient cases; and that, of all the medical gentlemen who were engaged in the thickest part of the epidemic, both day and night, for weeks together, and whose courage, energy, and attention could not be surpassed, not one of them was disabled by the pathognomonic symptoms of the disease.

SANITARY MEASURES. As soon as it was announced that pestilential cholera had invaded the town, a conference took place between the municipal authorities and the medical practitioners, with the view of carrying out the most approved sanitary measures. Districts were formed, and visitors appointed to each; the sewerage was made as effective as possible by as good a supply of water as could be spared from the reservoirs; the markets were vigilantly inspected, and the sale of everything likely to conduce to the disease, such as overkept or bad meat, stale fish, and every kind of shell-fish and unwholesome fruit, was strictly prohibited. Lodging-houses, crowded with vagrants, were inspected; their inmates dispersed; their rooms cleansed, whitewashed, and ventilated; and their privies disinfected and deodorized with quick lime. And as many of the lower classes were constantly found in a state of intoxication by

the free use of brandy to avoid the disease, but thereby became more disposed to it, hand-bills, printed in a plain type, were circulated, assuring them that, by observing temperance, a calm demeanour, and a plain nutritive diet; by keeping their dwellings clean, and well ventilated; by protecting the body with good and sufficient flannel whilst exposed to wet and cold weather; they would, in all probability, preserve their health, and stop the spread of the disease.

MEDICAL TREATMENT. With a view to prevent an increased development of cholera, every case of diarrhoea was regarded with suspicion, as being probably the incipient stage of the epidemic, and controlled, if possible, at once; carefully avoiding saline purgatives of every kind, fruit, vegetables, and fermented drinks; and restricting the diet to plain animal food and the farinaceæ. This was best effected by the cretaceous mixture, combined with the tincture of catechu, aromatics, and laudanum. Indeed, the early treatment of diarrhoea was considered so important, that a medicine of this kind was kept prepared at the Dispensary in the High Street, ready to be given to all who were attacked with these symptoms. A medical gentleman was also in constant attendance, to advise those who applied; and public notice was given to that effect.

Treatment of the Second Stage. If the means adopted failed to control the diarrhoea and vomiting, and profuse watery purging, without faecal smell, severe cramps, and inordinate thirst, clearly indicated the pathognomonic symptoms of cholera, the greatest attention was paid to the case, and the most decided treatment adopted, from the conviction that this was the last ground afforded for combating the disease upon equal terms. The patient was put to bed between blankets, his apartment kept airy, and his strength supported by clear animal jellies, rendered still more nutritious by some of the farinaceæ, to which spice and brandy were added. One grain of the acetate or hydrochlorate of morphia, and five grains of calomel, were given immediately. In two hours afterwards, two grains of calomel, with half a grain or a grain of opium, accompanied with a fluid-ounce of the subjoined mixture, were administered at shorter or longer intervals, according to circumstances:—

Rx.—Confect. aromat. ʒij,
Etheris chlorici,
Tincture capsici, aa ʒij,
Sp. ammonie aromatici,
Syrupi aurantii, aa ʒij,
Tincture opii ʒiss,
Spiritus menthae piperitæ ʒj,
Mist. camphore ad ʒvj. M.

If the symptoms did not yield to these means, a suppository of three grains of opium was introduced within the rectum, and repeated in four hours, if needed. At the same time, a fold of flannel, moistened with equal parts of the oil of turpentine and camphor spirit, was applied to the whole abdomen, and confined there by a flannel bandage.

This treatment appeared to be most entitled to confidence in this stage of the disease; but, as it often happened that one symptom more than others distressed the patient, and demanded especial attention, it was met by such means as were deemed most suitable to subdue it. If the serous flux continued to exhaust the strength, it was treated with three or four grains of the acetate of lead, and one of opium, every hour, or at even shorter intervals, if the urgency of the case required it. If the vomiting predominated, a large blister was applied to the epigastrium, and two drops of the dilute hydrocyanic acid were given in a drachm of water, after every copious vomiting. If severe cramps harassed and agonised the patient, the following pills were given every half hour:

Rx. Pulv. opii gr. ij,
Camphore gr. vj,
Mist. acaciae q. s.

M. et divide in pilulas duas.

In the event of their failing to subdue the cramps, the inhalation of chloroform was used with the happiest effect, and re-

† Observations on the Nature and Treatment of Cholera, and of the Pathology of the Mucous Membranes. By Alex. Turnbull Christie, M.D.

peated again and again, if the return of the cramp required it.

Treatment of the third stage. In advanced stages of cholera, when life was fast ebbing under the force of the disease, the success of any mode of treatment was at best but very uncertain. Nevertheless, such cases were not despaired of: on the contrary, as a considerable number had recovered from a partial state of collapse, every possible resource and redoubled energies were called into operation. The temperature of the body was raised by the hot-air bath, if at hand; if not, by warm blankets, bottles of hot water, terebinthinate epithems, mustard poultices, and other convenient appliances; and the system was supported by stimulants and strong animal jellies. The method of medical treatment adopted in this stage by different practitioners were, one or two grains of calomel every ten minutes or quarter of an hour, which is a modification of Dr. Ayre's treatment; large doses of opium and camphor according to Dr. Hawthorn's plan; bleeding, after having raised the pulse by essential aromatics and æthereal stimulants; and cold water *ad libitum*.

Of these several methods of treatment, the calomel, where the strength could bear it, was found to be comparatively the most successful; but its therapeutic effects were limited for the most part to young persons. Beyond the adult age it generally failed. I saw it fairly tried in some cases of the latter, in which it had no power whatever to arrest the fatal progress of the disease. One medical gentleman was bold enough to adopt Hawthorn's huge doses of opium combined with camphor; and in two cases it was reported to have rescued the patients from a desperate state of collapse: but the practice was not continued, probably, from the dread of inducing a fatal narcotism; indeed, it is to be feared that in some instances such a result actually took place from the heroic doses of morphia and opium which were administered, and which the menacing character of the symptoms appeared fully to justify. The abstraction of blood from a patient in this stage of cholera seems to be wholly irreconcilable with the symptoms; yet I was informed by a gentleman actively employed in the epidemic, and assisted by an army-surgeon who had often attended cholera in India, that he saw several cases of collapse cured by this treatment. The only way of explaining the success of this desperate remedy is by the possibility of its relieving the venous congestions which are found to exist in this disease, and thereby allowing the arterial blood to pass through the capillary system with its vitalizing resources. With regard to cold water drank *ad libitum* in collapse, another gentleman, who was also in the midst of the pestilence, reported that, having several children under his care in this state, and having totally failed to benefit them by every other means in his power, he allowed them to slake their craving thirst for cold water with unlimited quantities, and that by this treatment alone they recovered.* The good effect of this remedy would mainly depend on the water being imbibed by the oscula of the mesenteric veins opening upon the villous coat of the intestinal canal. If it merely passed through the canal, the diarrhoea would probably be increased and a fatal issue accelerated: but, if imbibition took place, the water might become a floating medium and an oxygenating pabulum for the blood-corpuscles, and thus increase their vitality.

The saline treatment was but seldom adopted. I advised a trial of it, according to Stevens's plan, in the case of a gentleman, aged 55, the progress of which was not rapid, and where it appeared to be well suited to control an incessant vomiting that greatly distressed him. This symptom it certainly did relieve, and also improved the colour of the stools: but, on the other hand, it aggravated the diarrhoea, which brought on a fatal collapse.

Treatment of the fourth stage. It would be in vain for me to recommend any mode of treatment for this stage of the disease, as there was none that deserved the slightest confi-

dence: all alike failed. There were, doubtless, a few cases that recovered even from this extremity; but these were bare exceptions to the general rule of death. In some, the complete collapse was gradually brought on by a persistent diarrhoea as in the instance last mentioned; whilst in others the patient was at once blighted and killed by the intense power of the choleric poison. The following is an example of the latter.

A young man, in the prime of life, and in good health, during the height of the epidemic, brought into Southampton a load of grass from the borders of the New Forest. Soon after he had delivered his commodity in East Street he was attacked with cholera, and returned towards home: but he had not passed through Mill brook—a distance only of two miles—before he was found in a state of complete collapse. He was taken into a public house and immediately received the utmost attention from two medical gentlemen, who placed him under Ayre's treatment. Happening to be passing by, I was requested to visit him. His intellect was clear. The skin was of a darkish brown colour; his extremities cold; his pulse scarcely perceptible; he was shrunk up, and constantly changing his position from one side to the other. Everything failed to bring on reaction, and he sank in a very few hours. In this character, cholera may be emphatically termed "the pestilence that walketh in darkness and destroyeth at noon-day". Beneath its malignant power the physical strength of man is mysteriously brought to nought, and "fades away suddenly like the grass". "In the morning it is green, and groweth up: in the evening it is cut down, dried up and withered."

Southampton, February, 1853.

TREATMENT OF SIMPLE ERYSIPELAS AS A LOCAL ACUTE DISEASE.

By JOHN HIGGINBOTTOM, Esq., F.R.S.

(Read before the Midland Counties' Branch of the Provincial Medical and Surgical Association, at Nottingham, March 10th, 1853.)

I wish to bring before my professional brethren the following questions.

1. Is simple acute Erysipelas a purely local, or a constitutional disease?
2. Is it sometimes a local, and sometimes a constitutional disease? or,
3. Is it simultaneously both, a local and a constitutional disease?

I am of opinion that it is in all cases purely local; and that the constitutional symptoms are a result of the local disturbance. This opinion I have formed from the following facts.

1. I have had a number of cases of erysipelas on the face and elsewhere, where there have been no constitutional symptoms; in these the disease has been directly arrested and subdued by the application of the nitrate of silver. Now, it is my opinion that, if the erysipelas had been allowed to proceed without the local application, severe constitutional disturbance would have been the result.

2. If from exposure to wet or cold, etc., a feverish attack should come on, and in several days erysipelatous inflammation should supervene; on a prompt application of the nitrate of silver, along with the use of common remedies for the cold, the patient becomes convalescent in a few days: but if the local application is neglected, the inflammation runs its usual course, the constitutional symptoms become more aggravated, and the illness is much prolonged.

3. If the erysipelas and constitutional symptoms are simultaneous, a prompt application of the nitrate of silver, and the use of active constitutional remedies, cut short the disease; and the patient is convalescent in a few days. But if the local application is neglected, the disease runs its usual and often destructive course, setting at defiance the most active constitutional treatment.

* Vide Notes on Cholera, by Dr. Gilchrist, Inspector-General of Army Hospitals, etc.