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.

In my *Further Observations on the Nitrate of Silver*, p. 31, is related the following case, which will illustrate what I have advanced.

CASE I. Mrs. S., some years since, had a severe attack of erysipelas of the face and head, which ran its course under the old medical treatment; the effects of the disease were so severe as to confine her to her bed-room for six weeks.

In November 1845, she had another attack of erysipelas, which had progressed twenty-four hours before I saw her. A decided application of the nitrate of silver was made to the parts affected, and purgatives were given. She was convalescent in seven days.

The following year, in October, erysipelas again made its appearance on the face. She had taken a purgative before I saw her. One decided application of the nitrate of silver was sufficient, and she was not confined to her house a single day. No further remedies were required.

Mr. Nunneley, of Leeds, in his monograph on Erysipelas, says (contrary to his own opinion), that Dr. Smyth, Mr. Earl, Mr. Arnott, Mr. James, and Mr. Lawrence, consider that "erysipelas is essentially a *specific disease*, affecting one tissue alone, characterized by the local disorder, which forms the chief symptom and upon which the constitutional disturbance depends."

From the commencement of my treatment of erysipelas with the nitrate of silver, I have considered it a local specific disease; and this view appears to be supported by the speedy subsidence of the fever, as soon as the local disease has been subdued by the application of the nitrate of silver.

Erysipelas may be considered as the result of a poison, *sui generis*. It remains at first like a small patch on one side of the nose, cheek, or elsewhere, and makes often no progress for twelve or twenty-four hours, continuing so long as to generate its own poison, which is then carried into the system; and at this period, the constitutional symptoms commence.

The following are my reasons for believing that erysipelas is a local disease; which I wish to repeat.

1. If erysipelas makes its appearance on the face without constitutional disturbance, the prompt application of the nitrate of silver alone is sufficient to arrest and subdue the disease.

2. If fever and constitutional symptoms come on before the appearance of erysipelas, the simultaneous use of the nitrate of silver and constitutional remedies cut short the disease, and the patient is convalescent in three or four days. But, if constitutional remedies alone are used, and the nitrate of silver neglected, the disease will commonly run its usual course.

3. If the erysipelas and constitutional disturbance come on simultaneously, the prompt use of both the nitrate of silver and the constitutional remedies arrest and subdue the disease. If the nitrate of silver is omitted, the disease runs its usual course.

4. Whether the disease be idiopathic or traumatic, the erysipelas has the same characteristics. The inflammation spreads and produces the same dire effects; first, on the skin; second, on the cellular tissue; third, on the mucous and serous membranes. Both the idiopathic and the traumatic erysipelas are cured by the same means.

Of course, the disease is often mild or aggravated, according to the healthy or unhealthy state of the patient, whether temperate or intemperate. I have always found consumers of alcoholic drinks most difficult to cure, in erysipelas as well as in all other diseases; and if they were banished altogether from medical practice, acute disease would be sooner cured, and chronic disease would be more manageable.

I do not believe in the occurrence of metastasis in erysipelas. That distant parts are affected in erysipelas is true: but this appears to me to be caused by the extension of the disease, and by the specific poison of the erysipelas carried into the system.

I would make an observation here which I have often insisted upon; viz., that in all cases a strong solution of

nitrate of silver should be used—one scruple of the nitrate to one drachm of distilled water. I not only use this strong solution, but also rub the stick of the nitrate of silver on any particular part where I wish it to be well applied. I have attributed the failure of this excellent remedy in the hands of some surgeons to the use of a weak solution; and this I have named, with other causes of failure, in my *Additional Observations*, page 19. In an excellent paper, by Dr. W. S. Oke, published in the *ASSOCIATION MEDICAL JOURNAL* for January 21st, 1853, p. 53, "On Erysipelas, etc." he mentions a surgeon who has used the nitrate of silver successfully, with a solution of one scruple of the nitrate of silver, six drops of the nitric acid, and one ounce of water. I am sure such a weak solution cannot be depended upon. I never knew a very free application of the strong solution, or the stick of nitrate of silver, "produce the destruction of the cutis vera," or be attended with any ill consequences.

Dr. Oke says, "the Royal South Hants Infirmary, in common with other hospitals, has been occasionally invaded by erysipelas with an average result; but since the nitrate of silver has been employed, the unfavourable terminations have been comparatively very few; and, I am persuaded, that were this excellent remedy more frequently adopted, erysipelatos inflammation might be generally controlled."

From a late epidemic of erysipelas in Nottingham, I have selected six cases; four where the nitrate of silver was applied, and two where it was omitted; the results of which were in accordance with my experience for the last twenty years.

CASE II. Mr. M., a railway clerk, aged 26, had erysipelas on the left side of his face, not reaching the scalp. He was slightly indisposed. One decided application of the nitrate of silver was alone required. He took an ipecacuanha emetic, followed by a calomel pill and purgative draught, and a saline mixture. He only required visiting four days.

CASE III. Mr. F., a farmer, about 50, a free liver, called at my house to consult me, having an erysipelatos inflammation of the face upon the right ear. It was spreading near the scalp. He was so little indisposed, as to be able to ride five miles on horseback to visit me. I applied directly, and very freely, the nitrate of silver to the inflamed part close to the scalp, and on and beyond the inflamed ear, fearing much that the scalp would become affected. I thought proper to prescribe for him an emetic of ipecacuanha, a calomel and colocynth pill at bed-time, and the following morning an active purgative mixture. He returned home on horseback, and I heard nothing more of him for a week, when he sent for a repetition of the purgative mixture, with a message that the inflammation was quite gone.

CASES IV, V. In October 1852, two sisters, between 20 and 30 years of age, living together in the same house, had erysipelas. The eldest had been indisposed for several days before I saw her, and the disease was attended with much constitutional disturbance—the erysipelas having partially affected the scalp. I thought it necessary to have the whole head shaved (although it caused considerable pain), so that I might apply the solution of the nitrate of silver freely to the whole scalp. The usual constitutional remedies were used. In this case the recovery was more tardy, on account of the application of the nitrate of silver having been so long delayed. A troublesome inflammation of the eyes was produced in this case, by the neglect of applying the nitrate of silver on the inflamed eyelids, which should always be attended to, in order to prevent inflammation of the conjunctiva.

The younger sister, disliking the application of the nitrate of silver, was desirous of taking an emetic and purgatives, to check the inflammation; but finding the erysipelas to come near the scalp, she submitted to a very free application of the nitrate of silver, which extinguished the inflammation, and she was glad that her hair was preserved.

In the two following cases, the nitrate of silver was not applied.

CASE VI. Mr. G., aged 54, of a gross habit, a habitual

consumer of alcoholic drinks, and a smoker of tobacco (but not an intemperate man), had in October a catarrh, and felt generally indisposed. There was a slight blush of erysipelas on the left side of the face, but not sufficient to excite any particular attention. Remedies were employed for his catarrh, but no local application was used to the erysipelas. The inflammation progressed over the scalp, and produced cerebral disturbance, which, however, was not severe; the throat and the mucous membrane of the larynx became inflamed; the irritation and cough increased; the constitutional symptoms were now very severe; the mucous membranes generally were affected; the joints were affected with severe pain and inflammation (similar to rheumatism), and the secretions were diminished in quantity, and in a vitiated state. A general bad state of body was induced, and after suffering a number of weeks, he died.

In this case all the severe symptoms followed the increase of the erysipelatous inflammation, and I think would have been prevented by a prompt and early application of the nitrate of silver.

CASE VII. In November, Miss J., aged 35, was attacked with a slight erysipelas on the left side of the cheek and nose. No external application was used. An emetic, active purgative, saline draughts, and repeated doses of calomel and James's powder, were given. The erysipelas progressed over the scalp, down to the neck, and a little on the chest. A continued and severe indisposition was the consequence, attended with cerebral disturbance, producing delirium for several days; for which blisters were applied to the nape of the neck. Several large abscesses formed in the neck and chest; the last of which was opened in eight weeks from the commencement of the erysipelas.

The above two cases were all I had attended for some years, where the nitrate of silver was not applied. Both were mild in the commencement. The result showed the necessity of a prompt and decided application of the nitrate of silver, even in the slightest attacks of erysipelas, to prevent future evil consequences. In the last case, all the severe illness would have been prevented by a timely application of the nitrate of silver. I do not say it *might* have been prevented, for the continued experience of twenty years or more has assured me of the practical truth, that it *would* have been prevented. I have had no case where abscesses have formed, when the nitrate of silver has been early and well applied in erysipelas.

I have found that a very decided application of the nitrate of silver in PHLEGMONOUS ERYSIPELAS has the extraordinary power of preventing the destruction of the subcutaneous cellular tissue, by preserving the integrity of the cutis vera, and subduing the cuticular inflammation. Even in a patient, where the limb has been as large again as the other, in which it could be scarcely expected to be benefited, the application has so far modified the inflammation as to render it a case of simple phlegmonous abscess, which has been relieved by a free opening with the lancet, and where there has been no loss of cellular tissue.

CASE VIII. Mrs. B., aged 68, living in a low part of the town (Narrow Marsh), had phlegmonous erysipelas of the whole of the right leg, extending a little above the knee on the thigh; the leg was as large again as the natural size, and was very tense and painful; there were some vesications on the fore part of the leg; the patient had been neglected, till the state of the limb alarmed the friends. I directed an emetic, purgative, and saline mixture, and applied the strong solution of the nitrate of silver very freely on the whole of the leg, and on and above the inflamed part of the thigh. The following day, the nitrate of silver had had the desired effect of allaying all irritation and inflammation, in which state it remained for four days; on the second and third day, a considerable degree of vesication had taken place, from the free application of the nitrate of silver; but I found the limb did not at all diminish in size; on that account, I knew from former cases, that suppuration had taken place. On the sixth

day, I made a free opening about two inches in length at the most depending part, about the middle of the limb; a large quantity of pus was evacuated, but there was not the least appearance of any sloughing of the cellular substance. In a few days afterwards, I made a small opening above the outer ankle, from which some sero-purulent matter was evacuated; and in a few days, on the opposite side of the limb, from which issued only a little serous fluid. The limb quite recovered. No further application was required, beyond the black lint and nitrate of silver to the sores, and a common linseed poultice constantly applied, repeated every eight hours. I never knew a limb in the same state, under the common mode of treatment, which terminated so favourably.

Nottingham, March 10th, 1853.

ON THE IMPORTANCE OF AUSCULTATION.

By F. G. PROBART, M.D., Senior Physician to the Suffolk General Hospital.

THE epoch is not so remote but that it must be well remembered, when the stethoscope had not only to contend with a variety of prejudices against its adoption; but, in many quarters, where more liberality might have been expected, was even ridiculed and despised.

The period, however, gradually succeeded, when many of those practitioners who had been foremost in contemning this instrument, were compelled both to respect its adoption in the hands of others to thoracic diagnosis, and even themselves obliged, in order to maintain the countenance of their patients, to employ it in the investigation of disease.

At length, the stethoscope is the constant companion of almost all members, whatever their grade, of the medical profession. The majority of them are, no doubt, fully competent to its exercise; but not a few otherwise qualified practitioners, it cannot be denied, have, even now, either from an imperfect power of discrimination in sounds, a too limited practice, or reprehensible neglect, a very inferior knowledge of its diagnostic applicability—a fact that must occasionally be realized in the experience of all who have adequate opportunities for observation. Some excuse themselves for the neglect of auscultatory diagnosis, relying as they say upon the ordinary and sufficiently significant evidence, otherwise presented by the respective diseases of the thoracic viscera. But, as examples of the fallaciousness and danger of this unfortunate conclusion, I append the following cases, being two of frequent instances which I see of these lesions, so latent as to have been entirely ignored by intelligent and experienced men, unacquainted with stethoscopic phenomena.

CASE I. I was called into an adjoining county to see a gentleman, who had been ill six weeks, and whose case, his medical attendant informed me, had puzzled him, inasmuch as the symptoms continued without change, and he was unable to discover any organic disease capable of explaining them. I found the patient, a gentleman about fifty years of age, recumbent in his bed. His countenance was good, though rather suffused, and there was nothing in his general aspect to denote particular distress. When interrogated as to his feelings, he complained of a sense of fulness and uneasiness, referred to the stomach; of a frequent inclination to change his posture; of general restlessness; and, of course, absence of sleep. He said that he was quite free from pain, and had suffered none since the beginning of his illness, when he had "rheumatic pains" flying about his chest and shoulders. His pulse was under ninety; his tongue very red, glazed, and viscid: he had no inclination for food, although he took it; nor had he much thirst. There was cough now and then, but it was slight, and unattended by expectoration; and his breathing was so little disturbed as to have elicited no observation.

I immediately suspected the chest, because my friend had failed to find disease elsewhere, and was not an adept in