

vigour, and when, too, the minutest forms of animal life are the most active, and the air teems with life, are also the seasons when cholera prevails in its greatest intensity. Then it is that the dejecta of a cholera patient, thrown upon the open ground, may have the poisonous cells they contain carried off by the infusorial or vegetable germs floating about them. These latter become the depositors of the poison on food or water in distant places wherever they may be transported by the wind, or travel in congregated masses along a current of air. The following instances will illustrate this:—In 1848 the frigate *Undaunted* left the port of Canton. On her passage through the China Sea a number of her crew were suddenly attacked with Asiatic cholera. This continued for several days, when the surgeon recommended the captain to change the course of the vessel, which being done, the malady immediately ceased. The disease had not been prevailing at the place which the vessel had left. May not the poison have then been travelling on the minute invisible spores of some vegetable life which were being carried across in a steady current of air from one coast to another? In the centre of this current the vessel happened to steer for a time.

Again, when the cholera visited Dumfries, at its first appearance in this country, a vast cloud was observed one evening to hang over the town, in one sense stationary—that is, it remained in the same place, but every particle of it seemed to be in motion. The next day cholera broke out in the town, and raged with extreme virulence. This phenomenon was not merely observed by few, but was generally noticed, and many who witnessed it still live to corroborate its truth. Was not this a cloud of insects, thousands of which might have had the spores of the cholera fungus upon them (then prevailing in the country), and lighting upon articles of food, left, wherever they did so, the germs of the poison?

The blue mist so often spoken of, and said to be seen previous to an outbreak of cholera, may really have a foundation in fact.

There are many other points in connexion with cholera, especially the symptoms and post-mortem appearances observed, that I would have wished to adduce in support of the views here given, but I have trespassed so much on the columns of THE LANCET, that I must now hastily conclude, and would do so by expressing my conviction, in reference to one of the propositions set forth at the beginning of the paper, that while so much remains to be made clear as to the etiology of diseases, and especially of such diseases as cholera and typhus, their treatment will always remain unsatisfactory; and until we exalt into the first place the causes of disease, and make those the subjects of our deepest thought and most careful inquiry, we fail to rise to the comprehensiveness of our calling, which to meet with true success requires us thoroughly to understand the origin, as well as the characteristics of the enemies we have to deal with, before we decide upon the weapons with which to meet them.

Liverpool, Dec. 1867.

ON A CASE

OF

ABSCESS BENEATH THE ROOT OF THE TONGUE.

By ROBERT CUFFE, Esq., M.R.C.S.

ON March 16th, 1867, I was called to A. B—, a strong, well-built, and healthy man, about thirty-five years of age, a livery-stable keeper, of not very temperate habits, and found him unable to swallow, the tongue being greatly swollen, and partially protruding from the mouth. A slight swelling was perceptible behind the angle of the left jaw. He breathed quietly through the nostrils, and his speech was imperfect. These symptoms came on suddenly, the patient being in his usual health the day previously. I called in my partner, Dr. Spooner, who continued to attend the case with me. We ordered a purgative mixture, a linseed poultice to the throat, and the vapour of warm water to be constantly inhaled.

March 17th.—He has passed a restless night, the pain and discomfort of breathing having prevented sleep. The swelling of the tongue had not diminished; it was dry, and of dark colour, the tip being turned upwards and backwards. It was with the greatest difficulty that he could swallow a particle of fluid. Inhalation and warm fomentations were continued. He was ordered a mixture of tincture of muriate of iron with chlorate of potash, and an enema of beef-tea and gruel.

18th.—Ten A.M.: We found the swelling still undiminished. The patient was sitting up in bed, with an anxious countenance, but breathing quietly. The mouth could not be closed, for the tongue, which, with the parts beneath it, was inflamed, and more swollen than the day previous, with a profuse discharge of saliva, was pressed against the hard palate, and overfilled the cavity of the mouth. The patient was complaining of a deep-seated aching in the tongue. Speech was unintelligible, and his discomfort was extreme. He was obliged to explain himself by writing on a slate. Although there was a history of pain having been felt about the left side of the lower jaw, no tenderness or fulness of any kind existed below the inferior maxilla, with the exception, indeed, of a sense of deep-seated tenderness, not severe, on pressing firmly against the thyroid cartilage. On examining the fauces, which were with difficulty reached with the fingers, they were felt to be free from swelling, and the soft palate was in a natural condition.—Half-past nine P.M.: I consulted Mr. Callender, of St. Bartholomew's Hospital, who made a most careful and searching examination. At the left upper and back part of the tongue a considerable elevation of its tissue led to the suspicion of matter being present there, and a few drops were, we believe, let out by puncture with a curved bistoury, giving the patient temporary relief, probably from the attendant bleeding.

19th.—He had passed a restless night, was depressed, anxious, and complaining still more of deep-seated pain in the tongue. He now for several days had been quite unable to take food or drink, and at times breathed heavily, with difficulty, and with a sense of impending suffocation.

On further examination of the swollen parts, there was scarcely any evidence to indicate a centre for the disease; but observing that the entire tongue was lifted up, as if some pressure existed from below, and taking into consideration the brief duration of the illness, it was thought desirable to explore the parts beneath the tongue, in the hope of finding amongst them some collection of matter. Mr. Callender accordingly divided the mucous membrane between the tongue and the left bicuspid tooth, and then pushed a stout director inwards, backwards, and downwards, for about one inch; but without any result. He then reintroduced the director, and, with the exertion of some force, pushed it back towards the root of the tongue for a distance of rather more than two inches, when a quantity of pus flowed quickly up the groove, and escaped externally. The patient felt at once relieved, and the next morning could swallow pretty well. A probe had to be introduced occasionally to ensure the ready outlet of the matter. In a few days the patient was comparatively convalescent, and able to resume his usual avocations.

Mr. Callender observed that it was most unusual to have an abscess form beneath the base of the tongue and in front of the epiglottis, as must have been the case in this instance, as proved by the distance of the pus from the surface of the floor of the mouth, and by the direction of the probe downwards and backwards. There was no pointing or tendency to point; and the absence of all local symptoms from the region below the jaw was an important feature in the case, showing that the matter was walled in below and laterally by the mylohyoid and hyoglossus muscles of either side.

It is obvious that the plan employed in searching for and opening the abscess was the only one that could have been adopted. It would not have done to have cut deeply from the inside of the mouth, and there was no symptom to guide to and to justify an incision below the jaw, through the parts connecting it and the tongue with the hyoid bone.

Guildford-street, Russell-square, 1867.

ON THE MANUFACTURE AND PROPERTIES OF CARBOLIC ACID.

By F. CRACE CALVERT, Esq.

As the employment of carbolic acid is daily becoming more extensive, not only as an antiseptic and disinfectant in private dwellings, as well as for public purposes, but also as a therapeutic agent, I hope that it will prove interesting to many of the readers of THE LANCET to obtain an outline of the properties, not only of pure carbolic acid, but also such qualities as are best suited for its application as an antiseptic and disinfectant.