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For the Week Ending October 1, 1892.

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Table listing articles for the week ending October 1, 1892, including 'I. ARCHÆOLOGY.—New Discoveries at Pompeii', 'II. BIOGRAPHY.—Pliny Earle, A.M., M.D.', 'III. CIVIL ENGINEERING.—New Method for Foundations', etc.

PROGRESS OF THE CHOLERA.

In Asia and Russia the cholera has carried off many thousands of poor people, chiefly by reason of the filth in which the victims lived and the lack of proper medical treatment. In Europe the disease made no alarming progress, except in Hamburg, where it was brought from Russia, and, owing to the dirty condition of the town and the supineness of the authorities in adopting proper sanitary measures, the advance of the disease became rapid and ominous.

As soon as the disease appeared in Hamburg prompt precautions were taken at nearly all other European seaports and principal cities to prevent the spread of the disease. These efforts were successful, and the progress of the pest appears to have been effectually stopped. Such great cities as London, Paris, Berlin, Vienna, although in direct communication with Hamburg and Antwerp, suffered but little.

It is a peculiarity of this disease that its spread may be readily checked and controlled by the early adoption of intelligent precautionary means and regulations. In New York due notice was received of the probable approach of the pest, and vessels arriving from infected ports were promptly quarantined. Steamers from Hamburg were rigidly guarded; the passengers were transferred to salubrious landing places, and wherever any sign of the disease appeared the case was at once isolated and skillfully treated.

CHOLERA AND SOME INDICATIONS FOR ITS MANAGEMENT.

Considered in detail, the chief symptoms of this malady may be outlined as follows:

- (1) Purging of a peculiar flocculent, rice water kind.
(2) Copious vomiting, at first with tinges of bile, perhaps, but later of thin, colorless and odorless fluid.
(3) Severe cramps in the lower extremities and abdomen, rendering the muscles hard and tense.
(4) Sometimes, in the early stage, albuminuria followed by complete suppression of urine.
(5) Diminished circulation and impeded respiration, causing intense prostration, with icy coldness of surface of the body, of the hands, the tongue and even the breath; perhaps, also, oppression and pain in the region of the heart.
(6) Frequently, noises in the ears, dimness of sight, and deafness.
(7) Marked depression of temperature, notwithstanding which the sufferer usually complains of oppression and prefers to lie uncovered; generally, too, both during collapse and reaction, the thermometer in rectum registers three or four degrees higher than in the axilla, and the latter is at least one degree lower than in the mouth.

The lividity and blueness of the lips and surface of the body generally is remarkable; at the same time the skin becomes shriveled and bedewed with death-like dampness. The sharp pinched appearance of the features, the muddy complexion, and the sinking of the eyeballs, with flattening of the corneæ, are so characteristic as to give rise to the designation facies choleraica. There is also alteration of the voice, which becomes whispering, hollow, and unnatural, owing to diminished volume of air in the lungs.

As the malady progresses, there is a gradual lessening of respiration, and, coincidentally (or nearly so), diminution or absolute disappearance of the pulse, the action of the heart being almost or quite inaudible. Finally, there is complete arrest of circulation. Death may occur any time from three to twenty-four hours after the first inception of the malady, depending upon the nature and severity of the attack, etc. But those that survive to the latter period frequently recover, often mending with wonderful rapidity.

An attack may be ushered in or preceded by a slight attack of diarrhœa; consequently, during an epidemic any looseness of the bowels is sure to be regarded with suspicion. Nevertheless, the disease not infrequently asserts itself without any form of premonition or warning. It may be borne in mind, however, that all diarrhœic or dysenteric discharges that occur during an epidemic are not necessarily choleraic. At such time there is always prevalent an intestinal flux that is distinct from cholera, and presents characteristics varied from simple diarrhœa up to cholera; and it is of importance to discriminate between the two. The less formidable complaint presents alvine evacuations possessed of more or less consistency and tendency to formation, and, moreover, have in greater or less degree the characteristic odor of fecal matter; the discharges of cholera, on the contrary, are odorless and colorless, chiefly made up of large quantities of watery fluid holding in suspension flocculent matters (flakes of mucus), hence the likening to rice water—water in

which rice has been boiled, colorless, with shreds of albuminous matter derived from the cereal.

What the poison of cholera may be is still a moot question, and Koch's assertion it depends upon or resides in the comma bacillus is far from being conclusive. The symptoms that usher in a seizure indicate a form of poisoning so obviously, that the chief upholders of the bacillar theory have been compelled to hesitate and even inquire whether, after all, some ptomaine or other alkaloid may not be the specific virus. Finally, Drs. Lewis and Cunningham, of the army medical school at Netley, England, have shown the bacillus of Koch is constant in the mouth and throat of healthy persons; and though Koch rejoined his bacillus differed in size and shape, the accurate measurements undertaken by these gentlemen, in conjunction with Arthur E. Brown (and verified by Sir William Aitkin), and the reaction of the same to staining fluids, prove the precise contrary; again, though cholera fluid may be boiled and disinfected to the complete extermination of all bacilli, yet it fails to lose its characteristic infectious and toxic properties (Aitkin, Lewis, Cantani, Klebs). It is evident, then, the bacillus of Koch is not per se a cause; and time has only confirmed the utterance of Trichum, a propos of this microbe, that the purported discovery no more definitely settled the question of cholera than knowledge of the bacillus of tuberculosis will terminate pulmonary consumption.

It is certainly folly to prate of curing cholera when the very principles which should be a guide to treatment are undecided, antagonistic, and devoid of physiological basis. To this hour, among many—the majority, in fact—the question is mooted whether recovery depends upon persistence of the intestinal evacuation, or upon its suppression. That patients have recovered and do recover, under all kinds of treatment, often widely different and aggressively antagonistic, must be universally acknowledged. In nineteen cases out of twenty the remedies prescribed by mouth or by enema are returned unaltered in the vomit or the stool, else mingle with the fluids in stomach or bowels without being absorbed until the crisis is over, when they are very apt to prove mischievous.

Prior to the last epidemic in England, there were few practitioners who did not believe it a duty to check the so-called premonitory diarrhœa with astringents and opiates, and reports of thousands of cases might be collected wherein medical men believed that by this method they prevented the development of the stage of collapse, though it is plainly apparent the theory upon which such practice is based is very far from infallible. Further, the whole subject has been so complicated by the publication of immature hypotheses and extravagant conceits, and the views held by different individuals seeing the same class of cases in the same institution are so opposite, it seems difficult to form any trustworthy opinion. Physicians only after each epidemic learn the lessons they taught and the principles they inculcated with so great care and energy were possessed of no real value—in reality had a mischievous tendency. Taking these circumstances into consideration, the bewildered practitioner may well ask, "What shall be done?"

It is strongly advised to scout all extravagant plans of treatment and not worry the sufferer with nauseous remedies that, to say the least, have time and again proved utterly useless. First, isolate him, as far as possible, securing at the same time a plentiful supply of fresh air. Next, see that his drinking water is pure, particularly that it has not been drawn from or polluted by any sewer, or sink, or river that is or has been used as a cesspool. For obvious reasons, the rain barrel is safer than the well. Empty the sick room of all superfluous furniture, of curtains, carpets, etc., covering the floor and neighboring passages with sawdust or sand, wet with some disinfectant fluid, such as dilute solution of aluminum acetate or Labarraque's solution; and when removed, the same should be wholly burned or purified by fire. Sulphurous acid gas may also be used for fumigation purposes. All excreta invariably must be received in earthen pans containing strong disinfectant fluid, and at once cremated or buried—certainly not thrown into drains, sewers or stream. Finally, the soiled body and bed linen should be soaked in an antiseptic solution (solution of corrosive sublimate, if desired), or in boiling water containing some disinfecting powder and afterward washed with carbolic soap. Better if they, too, should be burned.

It need scarcely be added, the importance of the community of the preventive methods just outlined against infection can scarcely be exaggerated.

An attack of diarrhœa must on no account be neglected. The sufferer should at once be sent to bed, kept quiet, carefully nursed, and allowed to drink freely of soda water, plain, pure ice water, cold coffee, or milk and water, as often as thirsty; either cold or warm tea is quite prone to provoke or increase nausea when there is a choleraic tendency. Farinaceous foods, with well salted beef or mutton broth, may be taken as demanded or desired. Poultices may be ap-