

wished to draw attention to the erroneous opinion that the quantity of milk is alone of importance. Sometimes infants do not get on even when an abundance of milk is produced, but do so at once when there is a change of wet-nurses, showing that the difference in the quality is also a factor.

CHOLERA.

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I have been asked by the Editor to write this week on the subject of cholera. As in previous articles, I shall not give a detailed account of the whole subject, such as may be obtained from any modern text book of medicine, but shall confine myself to those points which should be of service to those nurses who may happen to be in a locality where the disease is prevalent, and where, incidentally, it might fall to their lot to deal with some patients on their own responsibility.

Cholera is a definite disease which is due to the presence in the patient of the cholera bacillus, which was discovered by Koch in 1884. It is very infectious, and often spreads with alarming rapidity not only from person to person, but from place to place. There is only one true cholera, though some confusion has arisen through some epidemics of diarrhoea (which have occurred from time to time in this country) having been called cholera nostras. Really these are not true cholera at all, and the cholera bacillus is not present in the patients.

True cholera is mainly a disease of hot climates, and is most prevalent in Asia, though epidemics have occurred during the hot weather in this country, and more frequently in some parts of the Continent, the disease having been carried by infected persons and clothing from parts where the disease is rife. In an island, therefore, it would appear first at a port where ships from infected areas usually unload.

The disease is usually transmitted by infected water, though milk, earth and soiled linen may also convey the contagion. In every instance there is infection of the transmitting substance by the intestinal discharges of a previous patient; in this respect cholera resembles enteric fever, and, as in this disease, there is no doubt that the infection of cholera may occasionally be conveyed directly from person to person by means of the breath, though intimate contact is necessary in this case.

The main conditions for a development of an epidemic—given the presence of the bacillus—are a high temperature and a low-lying place; in cool weather and amongst hills the disease never flourishes.

The organism itself is shaped like a comma, and is very motile, so that it can diffuse itself through a water supply, for instance, with great rapidity. When it is swallowed it makes its way to the lower end of the small intestine, where it flourishes and multiplies, and gives rise to an inflammation of the intestine. At the same time poisons or toxins are produced as the result of its growth in the contents of the intestine, which pass into the circulating blood, and have a powerful effect on the heart and nervous system of the patient.

The symptoms of cholera are well marked and distinctive. After an incubation period of from three to five days, the disease sets in with diarrhoea, which at first is indistinguishable from ordinary looseness of the bowels. In a short time, which varies from twelve hours in a severe case to two days in a less virulent attack, the stools become pale and watery—the characteristic "rice water" evacuations, and the stage of collapse sets in. The patient becomes cold, and the skin is covered with a clammy sweat; the eyes are sunken, and there is intense thirst. The stools literally flow in streams, and it appears that all fluids swallowed pass out straight through the bowel: vomiting sets in and soon becomes incessant. The patient continues conscious, and is, moreover, in great agony, not only from the vomiting and purging, but also by reason of severe cramp-like pains in the calves of the legs and abdominal muscles, together with a feeling of intolerable distention of the abdomen, though, as a matter of fact, the stomach is really flatter than usual. The temperature, as taken in the mouth or axilla, is several degrees below normal, but in the rectum is raised by four or five degrees. The voice becomes husky and the breath is quite cold. The usual duration of the stage of collapse is about twelve hours.

At the expiration of this period the patient either dies of heart failure or begins to rally. In the latter case, the rectal temperature falls first, and then the skin gradually becomes warmer, and reaction sets in. The vomiting and diarrhoea cease, and the patient falls asleep and awakens refreshed, though very weak.

Here, again, he may recover, or may fall again into the stage of collapse, with a return of the thirst and diarrhoea, or he may pass into a condition resembling exactly that found in typhoid fever—the so-called cholera typhoid—

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