

Lastly, cows' milk is acid, human milk is alkaline. Hence, bicarbonate of sodium or lime water should be added, the latter being the best.

In the dietetic treatment of cholera infantum he depends upon milk foods mainly; diluted cows' milk with the addition of lime water has given the best results. Not more than two to four ounces should be given at each feeding, and we should take a lesson from nature in this respect. The amount of food should not be increased until the child is about a year old. It is also desirable to vary the food. It may be diluted, and cream and milk sugar added; if cane sugar be used instead, the quantity should be less. The addition of some starchy material, such as dextrin, is useful. One of the best is arrowroot; and barley water, as recommended by Dr. Jacobi, is very good. Mellin's Food has often proved most useful. In some cases excellent results are obtained from taking away all milk and administering beef juice alone, but many infants will vomit the soup as soon as given.

It is also necessary that precise directions be given how the infant should be fed, as to amount, frequency, etc. A young infant should be fed every two or three hours; older infants four to six times a day. Experience had brought the author to the conclusion that only in rare and exceptional cases is it either desirable or necessary to feed more frequently than every two hours. If collapse seems imminent, stimulants are very good. In dealing with summer diarrhoea, the treatment should not be changed before well ascertaining the result of the first measures. Often, if the physician had waited a few hours longer, he would have found that he held the key to the situation. Ripe experience of the physician will be better than great learning.

As to micro-organisms and the chemical poisons in the milk, it is a fact that milk and food prepared with it may become dangerous. The existence of the chemical poison in milk has been demonstrated, so has the micro-organism. But the time is not yet ripe for the acceptance of the theory. The arguments are strong against it. Infants are attacked though nursed directly by the mother, in whose milk no micro-organism can exist. If we make no advance in our treatment, put the infant on an animal diet. The use of an exclusively animal diet is not new, but old. Certain cases will yield to it, in exceptional instances it fails; then we must return to milk. If micro-organisms were the only cause, no child would ever recover, and yet they continue to thrive under the milk treatment. If he were to accept the micro-organism argument, he should have to abstain from giving animal food; but then the difficulties are enormously increased; this no one will deny who has tried to feed on an exclusive meat diet. If vomited, we must try a mixed diet of milk and meat. The decision of the question: what constitutes cholera infantum? will often be very difficult.

If infants are taken from the breast, often they will not take it again. Continuing the assumption that micro-organisms are the sole cause of the disease, an animal diet must be substituted. It seems strange that as soon as an infant becomes ill, we must take from it that food which is best for it.

Dr. S. BARUCH read a paper entitled

A CLINICAL STUDY OF THE ETIOLOGY AND TREATMENT OF SUMMER DIARRHOEA OF INFANTS.

He said the season for cholera infantum was again upon us. There was a time when he dreaded the approach of summer. He had been taught to regard the disease as an inflammation, chiefly gastro-colitis, and to give minute doses of mercury. The inefficiency of this treatment showed that something must be erroneous. As long as he continued to look upon the disease as merely inflammatory, his severe cases died. He believed it to be chiefly due to the ingestion of micro-organisms. The theories hitherto prevalent were faulty, and have led to false methods of treatment.

The causes were: first, insanitary conditions, poverty, overcrowding; second, atmospheric conditions; third, bad feeding. The first causes prevail not only in cities, but under different conditions. He had observed the disease in rural towns, etc., in the backwoods of South Carolina, in Washington Heights and Audubon Park, and had found cases just as severe among the negroes of the South. While filth increases the mortality, the cause is due to micro-organisms.

Artificial feeding has long been accepted by the profession as a cause. Out of five hundred cases of summer diarrhoea, only a few occurred among breast-fed children. That had been ascribed to the difference between cows' milk and woman's milk, but this is an error. The chemical composition of cows' milk had been investigated again and again, and the difference shown. But if the artificial food was changed by addition, dilution, etc., we still find great difference in the toleration of the infant's stomach in summer and winter respectively. The rescarches of Esserich have shown that the great cry about cows' milk has no foundation. He had given casein in excess, and found it well digested. Healthy infants are capable of assimilating casein far in excess of their requirements. The author would not go as far as Esserich, for practically cows' milk is not so well adapted to infants as has been accepted. Yet the cause must be sought in another direction than in the difference of composition.

That high temperature exercises a powerful influence is true; in what manner does temperature change the prognosis? Its depressing effects are pre-disposing elements, but if this were the correct interpretation, it would not affect the clinical observation that the three factors act in unison, but their *modus operandi* has not been correctly understood. Why does cows' milk not cause disturbance in winter? The development of bacteria