

EPIDEMIC DIARRHOEA.

A very interesting and instructive lecture on epidemic (or summer) diarrhoea, given by Dr. Donald Paterson, M.R.C.P., at the Hospital for Sick Children, Great Ormond Street, W.C., where he is physician to the Out-patient Department, is published in the *Lancet*, from which we extract the following. The lecture is an analysis of 84 fatal cases which came to post-mortem in the summer and autumn of 1921.

During this year 147 cases diagnosed summer diarrhoea were admitted, and less than one-half were discharged cured, and Dr. Paterson says, although this would appear a very high mortality, actually the figures compare well with those of any other institution like Great Ormond Street Hospital, where only the most severe cases are brought.

Dr. Paterson writes:—

Epidemic diarrhoea, or epidemic enteritis, is a disease affecting infants and very young children during the months of July, August, and September, and sometimes October. It is characterised by an acute gastro-intestinal upset, with diarrhoea and vomiting, a low blood pressure, collapse, dehydration, symptoms of intoxication, or symptoms resembling shock. There is a high mortality. The aetiology remains indefinite. What part bacterial infection plays—whether it is a primary cause or whether merely of secondary importance—is not known. Whether this disease be due to the action of bacteria on the food, either before or after ingestion—whether or not there are several diseases grouped under this one term—whether we are really dealing with one of the so-called filter-passing virus group remains to be proved.

In dealing with a disease in which the chief symptoms, those of diarrhoea and vomiting, are common to so many other diseases, the difficulties of making a correct diagnosis are great indeed. I propose, therefore, to base my remarks on the findings in 84 cases which came to post-mortem during the summer and autumn of 1921. In this way, I exclude such diseases as cerebro-spinal fever, pneumonia or empyema, pyopericardium, and other conditions which may give rise to diarrhoea and vomiting in infants. When we consider that, out of the 297 deaths which occurred in Great Ormond Street Hospital under the age of twelve years during the year 1921 there were 73 deaths attributed to summer diarrhoea, we cannot but realise the seriousness of the complaint. The figure 73 does not include all the cases of summer diarrhoea, as a certain number were recorded under the complication which occurred during the course of the disease; the figures really ought to be 84.

TREATMENT.

Remarks on treatment following reports of a very large number of post-mortem findings need

some explanation. I have included them because there are certain lines of treatment, which, if adopted early, undoubtedly tend to benefit the patient to a marked extent, and there are certain methods which tend to do the patient much harm, although applicable to other forms of diarrhoea.

The treatment should in my experience be directed along the following lines:—

(1) The removal of the child from the surroundings in which it contracted the disease. This is an all-important point, as during the warm weather the hot, still atmosphere of the tenement tends to lower the vitality of the child, and the symptoms rapidly grow worse. Both in its causation and in its treatment, therefore, heat should be looked on as playing an important part. Anyone who has been through an epidemic of diarrhoea at a big children's hospital must have noticed the general improvement in the cases during a temporary cool spell of weather, and the immediate relapse during another hot spell. Fresh moving air seems to help in this disease, as much as it does in the respiratory diseases of children.

(2) Make good the dehydration. The most important treatment which a hospital can attempt is the administering of salines, which is almost impossible to carry out in the child's own home surroundings. That the great part of the distress which the child seems to be suffering is due to dehydration there seems little doubt. The best method of administering the salines has been largely debated, and of late, especially in America, the intraperitoneal method has come into favour. Some of the advantages claimed are, that it is more painless, quicker to administer, and quicker to be absorbed than the subcutaneous method. The child receives the saline at a known temperature, and it has not had a chance to cool off as in the subcutaneous method, where it must pass slowly from the raised reservoir along the rubber tubing.

The dangers of wounding the bowel seem slight, and there should be little chance of introducing an infection into the peritoneal cavity. Whether the presence of the saline increases the liability for infection to pass from the bowel to the peritoneum, however, is not clear. It should be noted, however, that for some days after the operation the child will not allow the abdomen to be palpated. This method of administering saline was adopted largely during the 1921 epidemic at this hospital, although saline was also administered subcutaneously in less urgent cases. There seemed a distinct advantage in the intraperitoneal method of administration if the collapse and dehydration was urgent, but because of the risks named above, it is not a method to be used except in these cases. To administer large quantities of fluid by the mouth is rational, and frequent feeds of a bland fluid should be given.

(3) Composition of the feed. Various feeds have been tried. Albumin water, plain boiled water, barley and rice water, weak freshly-brewed tea. During the 1921 epidemic, water containing a 7½ per cent. solution of glucose was used largely. It was sweet, the child liked it and would take it.

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