

THE PUBLIC HEALTH.

A REPORT ON AN OUTBREAK OF FOOD POISONING DUE TO SALMONELLA, TYPE "DUBLIN," AND CONVEYED BY RAW MILK.

We have received from the Ministry of Health a copy of the above report by E. T. Conybeare, B.Sc., M.D., M.R.C.P. (a Medical Officer of the Ministry of Health), and L. H. D. Thornton, M.A., M.R.C.S., D.P.H. (Pathologist to the County of Wiltshire), published by His Majesty's Stationery Office, Adastral House, Kingsway, London, W.C.2, price 2d.

The report deals with an outbreak of gastro-enteritis, due to the consumption of raw milk, and Sir Arthur S. MacNalty (Chief Medical Officer), in a Prefatory Note addressed to the Right Hon. Sir Kingsley Wood, M.P. (Minister of Health), states:—

"This outbreak forms another addition to the long series of recorded outbreaks of disease which have resulted from the consumption of raw milk, and is an example of the class of outbreak which is due to infection of the milk by a diseased cow. No amount of care in milking and distribution of such raw milk can prevent it from being a danger to the consumer. In other words, a clean raw milk is not necessarily a safe milk."

Sir Arthur states further that "in the present state of our knowledge, the only practicable way to reduce the risk of such outbreaks to a minimum is by efficient pasteurisation or by some other suitable form of heat-treatment, and this applies with still greater force in the case of bulked milk supplies, where the risk is commensurately increased. . . .

"Incidentally, the events at Wilton may help to throw light on heretofore unexplained attacks of vomiting and diarrhoea, particularly in children, which have from time to time been reported."

The authors of the report state that "the outbreak under consideration was limited to the consumers, chiefly children, of a particular supply of raw milk on October 28th, 1936, and the following day. Beginning not less than 12 hours, and usually not more than 24 hours, after the consumption of the milk, the chief symptoms were headache and nausea, followed by vomiting, which was severe but of short duration; later, there was diarrhoea, persisting in most cases for from one to three days with, in some instances, marked dehydration and collapse. The stools were watery but blood was not observed. A rise of temperature to between 99° F. and 103° F. was usual in the initial stage. No deaths occurred."

"An inspection of the mechanical milking plant in use at the farm suggested that, as a result of certain defects in the technique of operation, milk might easily have been contaminated with dung from any one of the cows. An examination of the herd, consisting of 51 cows, was therefore carried out."

"Specimens of both milk and dung were obtained on three occasions from three cows which came under suspicion. In every instance, the milk gave negative results, and in two cows the dung was also negative at each of the three tests. In the third cow, however, all three examinations of the dung showed a heavy growth of 'Dublin' type Salmonella, up to 50 per cent. of the colonies developing on litmus lactose plates being of this organism. It therefore appeared that we had detected a cow 'carrier' of the organism which caused the outbreak and also, since the organism was not being excreted in the milk of this animal, that the supply had probably become infected through contamination with dung, the access of which was permitted by the faulty operation of the mechanical milking plant."

"The outbreak here described may be compared with

earlier serious outbreaks due to infected raw milk, *e.g.*, the Brighton and Hove outbreak of septic sore throat in 1929, affecting 1,000 families and causing 65 deaths; the Epping outbreak of paratyphoid B fever in 1931, with over 260 cases; the Chelmsford outbreak of scarlet fever and sore throat in 1935, with 1,600 cases; and in 1936, the Bournemouth outbreak of typhoid fever with over 500 cases and 51 deaths; and also the Doncaster outbreak of scarlet fever and sore throat, comprising some 314 cases. In all the above outbreaks, the milk supply to which the infection has been directly traced had passed routine bacteriological standards for cleanliness."

The purity of the milk supply of the country is of the utmost importance, and it is not a pleasant thought that "the only practicable way to reduce the risk of such outbreaks to a minimum is by efficient pasteurisation or by some other suitable form of heat-treatment." Now that milk is so largely supplied to school children, every effort should be made to ensure that raw milk is safe milk.

THE PREVENTION AND TREATMENT OF CANCER.

The incidence, prevention and treatment of cancer were discussed by Sir Arthur MacNalty, Chief Medical Officer of the Ministry of Health, in an address delivered on April 12th at a meeting of the British Empire Cancer Campaign, at the Mansion House. The Lord Mayor of London presided.

Sir Arthur MacNalty said that, although cancer had now risen to second place in the list of fatal diseases in this country, it did not necessarily follow that the causes of the disease, whatever they might be, were becoming more prevalent.

Increasing longevity (to-day people lived, on the average, 15 years longer than they did a generation ago), increased ability to diagnose cancer in difficult cases, and true certification of the causes of death all played a part.

Our main lines of attack on the disease were prevention and treatment. On the side of prevention it could be said that the study of the causes of cancer was being carried on with great vigour throughout the world, and that the boundaries of our knowledge had in consequence been considerably extended. In this connection he welcomed the opportunity of paying tribute to the British Empire Cancer Research Campaign, which fostered and co-ordinated much valuable research.

In the realm of diagnosis and treatment, radium and X-rays are now associated with surgery, and the large hospitals of the country were now supplied with facilities for treatment by radium.

Excluding London, there were at present 22 Radium Centres in Great Britain, of which 17 were in England, 1 in Wales, and 4 in Scotland.

Our chief national concern was clearly that facilities for early diagnosis and adequate treatment should be readily available to the whole population.

"I use the word 'early,'" said Sir Arthur, "because all are agreed that when modern methods of treatment fail, they fail most often owing to delay before they are undertaken; I use the word 'adequate' because adequacy connotes radiation as well as surgical treatment; and I use the word 'readily' because trouble and inconvenience are certainly important factors in deterring patients from obtaining treatment or obtaining it early."

The problem was to ascertain how a small number of hospitals, specially equipped with radiation plant, might serve the whole population; in other words, these hospitals should serve, for the purposes of cancer, areas larger than those they normally serve.

The extension of the sphere of influence of such hospitals and the creation of more treatment centres both offered possibilities as means of approach to the problem.

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