

MEASLES IN A STATE INSTITUTION

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Sometimes it seems as though, in medicine as in journalism, only the new and the sensational attracts and stimulates to great activity. The new danger, as expressed in a disease with which we are unfamiliar, rouses us and calls forth the most stringent measures for its suppression, while the danger, ever present in such a disease as measles to which mankind seems universally susceptible, receives scant consideration.

A study of measles and its epidemiology has convinced us that we have to deal with a disease fraught with much danger, where a physician's watchful care is needed till all probability of complications has passed. Let us remember that during the past year there were in the aggregate more deaths from measles in the United States than from scarlet fever, and in some states where the reports were closely followed up, the total deaths from scarlet fever and diphtheria were slightly less than from measles. These figures do not take into consideration the mortality incident to broncho-pneumonia and other complications where the underlying measles were disregarded when the death certificate was signed.

In dealing with measles in our institutions, there are certain phases of the problem that are not apparent and do not appeal to the casual observer and it is to these special features, as they affect us and our charges, that we wish to call attention. The epidemic of measles through which we have recently passed has rendered specially vivid certain points relative to the disease, its dangers, and the difficulties in its control. While the death rate from measles occurring among normal children in good health, endowed with a reserve-store of hereditary vitality, nourished by a carefully selected, well-balanced dietary, living a free, out-of-doors life under the special care of a mother or nurse is low, such is not the case' where we have to deal with the poor unfortunate defectives in our institutions. These children, heir to a constitution weakened by parental excesses or diseases, crippled in mind and body, many already infected with

tuberculosis, with sluggish circulation, blunted sense perception, and slow or absent voluntary and involuntary muscular response to normal stimuli, are rendered more susceptible to complications, thereby raising the death rate very materially. Even though our authors give the death rate from measles in hospitals as two to three times the mortality among children in private practice, yet few realize that at times this disease in its ravages mows down its victims like the plague. This is shown very forcibly by the following: During five years at the Hospice des Enfants Assis, of Paris, there were 1575 cases with a death rate of 46.22 per cent.; at l'Hospital des Enfants Malades, during seven years there were 2585 cases and a mortality of 40.15 per cent.; and during five years Hospital Touseau, of Paris, there were 900 cases and a death rate of 25 per cent. In our epidemic we feel that we have been quite fortunate, having a death rate of 8 per cent in too cases. Two other deaths occurred, one from epileptic convulsions during convalescence and one from tuberculosis. In the latter case the patient was in the last stages of the disease when attacked by measles.

Among the interesting and highly suggestive features in this outbreak, the following seem worth}' of note: We had two foci of infection in separate buildings, the one designated A was contracted in town; the second one, I', appearing nearly at the same time, was in another building with no contact with the previous case, the source of infection being unknown. The cases can be grouped and identified as coming from the one or other of these sources by the symptoms and general trend of the disease. Group A was characterized by marked symptoms of toxemia, high fever, livid rash, rapid pulse, sordes and mental dullness, while group B showed less signs of toxemia and a greater liability to catarrhal complications. Group A, though occurring among adults of a higher physical and mental grade and numbering only fourteen cases, was responsible for two deaths or 14.287 per cent., while the other eighty-eight, occurring in a lower grade of children among whom were the babies, had only six death.- or a mortality of 6.81 per cent. It is of importance to state that following convalescence two of the patients in group A developed tuberculosis. The onset in the first case.

Recognizing measles as a serious disease among normal children, and convinced it is one to be especially dreaded in an institution for defectives where large numbers of children are brought into close association, and realizing the necessity for adopting measures to prevent its entrance or spread, how can we control it? We have to deal with one of the most contagious of diseases, an infection which may be brought to us by new arrivals, employes or casual visitors; an exanthem which may be readily confounded with German measles, or in some instances with scarlet fever, and worst of all, a contagion which is often infectious to others before a diagnosis can be made. What can we do? In our institutions we have a limited corps of attendants and nurses; we have oft-times to deal with help that object to any change in their regular routine, chafe if called upon to do extra work or give up their "hours off" and not infrequently rebel and resign if the measures adopted to control the situation restrict in any way their movements. We have to consider the parents of such children as are not stricken but may be exposed at any time, remembering at all times that they will be greatly alarmed at the report of a contagious disease in the institution; that they will object to any unusual limitations in the social life of their child; also remembering that in the minds of the laity no one ever dies of measles. Could we but remove the cause by preventing the introduction of that first case, our problem would be solved, but how can this be accomplished? We often hear the opinion expressed that a detention pavilion would solve this problem, but would it? If we isolated each incoming member of our household, we should still be open to the danger of our employes or visitors bringing it to us. This incubational

detention seems impracticable as it requires extra help, greater expenditure in wages and for buildings and, moreover, keeps the child under restraint at a time when most of all it needs to be with the other children. Then, too, it would not bring about the desired end.

It seems that the only endeavor that can possibly bring commensurate benefit is to limit to a minimum the spread of the disease when it makes its appearance. Provide a hospital, ward, or rooms for such cases and transfer each case as quickly as discovered to the isolation hospital; in so far as possible, by questioning, and the information given on the application blanks, determine those among the contacts who have not had the disease; if possible, quarantining all contacts-- during a period between the seventh and twenty-first day after exposure, sending each to the hospital as it develops; no case to be discharged from the isolation hospital or ward till all catarrhal symptoms have disappeared and desquamation is complete; all handkerchiefs and linen soiled by discharges from nose and throat to be boiled.

It is often stated that the spread of measles in a building where it has once appeared cannot be checked until all susceptible individuals in the building have had the disease. This has not been our experience. In one building, housing 203 children, the disease made its appearance in three grades out of five. In one of these three, almost every child was affected, while in the third, only two cases appeared. Besides the hundred children in the two grades unaffected, there were two children of employes living in the building that escaped the infection.

Since it is very seldom, if ever, that measles is carried by* a third person, strict quarantine over the nurses in the isolation hospital need not be enforced, and there will be less difficulty in holding the nurses to their duty. This is extremely- important where we have to draft into the nursing service attendants and other employes. Where these suggestions can be carried out, we feel sure that the infection should not spread beyond the grade or building in which it originates.