

NOTE ON THE MENTAL AFTER-EFFECTS OF SLEEPING SICKNESS IN SCHOOL CHILDREN.

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IN a recent article in *The Lancet*¹, Dr Donald Paterson, the Medical Registrar at the Great Ormond Street Hospital for Children, working in collaboration with Dr Spence, of the Children's Department at St Thomas's Hospital, has published and discussed some interesting records of the after-effects of epidemic encephalitis lethargica in children. In such diseases the question invariably arises as to what is the chance of complete recovery, and what is the likelihood of some degree of physical or mental impairment. In previous epidemics no records appear to have been kept which enabled a satisfactory answer to be given to this question.

Dr Paterson and Dr Spence selected 25 cases between the ages of 3 months and 11 years in which the diagnosis appeared to be incontrovertible. They carefully excluded all patients who, before the onset of the illness, were not of normal health or intelligence. The selected cases they followed up for a considerable period after leaving the hospital.

Their conclusions are as follows:

In the majority of cases epidemic encephalitis in children is followed by permanent after-effects, either physical or mental. In only 25 per cent. of the cases in their series was the recovery complete.

In about 30 per cent. of the cases organic residual paralyses persisted after the original illness, the cases showing such conditions as hemiplegia, spastic diplegia, symptomatic paralysis agitans, muscular rigidity and tremors. In general, however, all the children seem well-nourished and have preserved the ability to gain weight and thrive.

The most significant results, however, are to be seen in the mental condition of the children. These observations are of especial interest. Recently, imbued with the importance of inherited mental defect, psychologists have been prone to attach less weight than formerly to diseases of the nervous system supervening during childhood as a factor

¹ "The After-Effects of Epidemic Encephalitis in Children," by Donald Paterson, M.B., B.Ch. Edin., M.R.C.P. Lond., Medical Registrar, Hospital for Sick Children, Great Ormond Street; and J. C. Spence, M.C., M.D. Durh., M.R.C.P. Lond., John and Temple Research Fellow, Children's Department, St Thomas's Hospital. *The Lancet*, Vol. II, 1921, p. 491.

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in the causation of mental deficiency. Here we seem to have definite evidence that children, who would otherwise have grown up into normal and intelligent adults, are converted into mental or temperamental defectives by the misfortune of brain diseases in early years. Among the 24 surviving cases the mental condition was affected in 18. Of these, seven are grossly mentally deficient and in a state of permanent and hopeless idiocy. Others show minor degrees of mental derangement.

The eventual condition seems to depend very largely upon two factors: firstly, the severity of the initial illness, and, secondly, the age of the child when first attacked. After a short illness, the stupor lasting for a few days only, the child as a rule completely recovers. If the lethargy persists for three or four weeks, then mental deficiency may be expected, at any rate if the child is young.

Even more important seems to be the influence of age. The younger the child, the more serious the after-results. If we analyse the table of results which the investigators publish, it would appear that in children under 3 years gross mental deficiency is likely to ensue. With children aged between 4 and 8 the milder degrees of dullness, backwardness, and such lighter grades of mental deficiency as are characteristic of special schools are apt most frequently to be found. With children aged between 8 and 12 there may be a slight retardation in general intelligence, but the chief disturbance is one of temperament and character. The child may become emotional, irritable or restless, or develop delinquent propensities, such as petty violence, mischievousness, and perpetual pilfering.

Those who have to deal with cases of juvenile delinquency will realise the importance of these results. In a small but appreciable proportion of such cases that come under official notice on the ground of criminal tendencies there is a history of encephalitis or similar disease, and before this investigation was made it was difficult to know how much weight should be attached to this incident as a causative factor in the mental change.