CHILDREN OF LEPERS AT NAURU

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The following brief communication is prompted by an article in The Journal, entitled "Experience with Children of Lepers," by Mrs. R. C. Richardson (1). Mrs. Richardson quotes a letter from the editor which points out: "... how interesting to leprosy workers are actual facts of experience with children removed from contact with lepers, as differentiated from opinion based on expectation. The fact is that there is comparatively little data of that sort..." This quotation encourages me to record the experience at Nauru with children born to leper mothers.

The main features of the course of leprosy at Nauru have already been described ably by Bray (2) and Grant (3), but little attention appears to have been paid to the fate of the children born to mothers in segregation. I became interested in this question in the course of an extensive investigation into all the available data, in an endeavor to supplement the papers by Bray and Grant. An effort was made to trace the children of all cases of leprosy on the island, both "open" and "closed," but records of the latter were inadequate and this communication is restricted to the children of segregated persons.

Since the first cases were placed in segregation in 1920, there have been three hundred and eighty-five persons admitted to the leper station, excluding three Chinese who were indentured laborers from China. Of these admissions, seventy-five were females who, during all or part of their period of segregation, were of childbearing age, which is taken arbitrarily to be 16 to 40 years for the Nauruan. Forty-three living children have been born; there has also been one still-birth, of which the cause was not connected with leprosy.

When an infant is born in the leper station the usual procedure is for it to be bathed by the orderly in charge, who is an arrested case, after which it is handed over the fence to a "caretaker" who dries and clothes it and thenceforth acts as a foster mother. As far as possible, it is seen to that the caretaker is not even attending the clinic for noninfectious leprosy cases, though in practice it is not always

possible to follow this rule because all the available relatives may be attending the clinic. The welfare of the child is carefully guarded by regular attention at the baby-health clinics, which are held weekly. It is probable that the foster mother, having to feed the child artificially, cannot do all that the real mother could; however, this is problematical, as almost half the native mothers feed their children artificially.

The infantile mortality rate for these children, in the very small series available, is rather above that for the island as a whole over the past fifteen years. Nine have died (21 per cent) at less than 5 years of age, five of them under 12 months. The causes of death were ordinary infantile conditions, no death being due to leprosy.

Of the thirty-four children still alive, ten may be excluded as less than 3 years of age and consequently below the age at which signs of leprosy can reasonably be expected to appear — though I realize that children less than 3 years old have been reported to have had leprosy. Out of the remaining twenty-four children born to infectious mothers and removed at birth, five have developed the disease, three in an infectious form. This is an incidence of 20 per-cent. Three of these five have been admitted to segregation as infectious cases, at the ages of 9, 7 and 4 years, respectively, but one of them has been released after three years' treatment. Two other children attending the clinic for closer observation and treatment exhibit small hypopigmented areas with slight sensory disturbances, but no signs of cutaneous activity and no acid-fast bacilli in skin sections. They correspond somewhat to the type described by Muir(3) as "juvenile leprosy."

Sixteen children above the age of 5 years have been subjected to the leprolin test, according to Muir's technique (4). The reactions in all cases were very slight or almost negligible, as might have been expected from the age of the patients. Only one child gave a more definite reaction to the Hansen leprolin, and that at only one reading out of six taken at weekly intervals. The reactions of the children who have developed the disease are given in Table 1.

No attempt has been made to draw any conclusions from this series, as it is considered to be too small. Furthermore, it is not possible to be absolutely sure that an infant removed from its mother at birth does not come into contact with a case of infectious leprosy at some time, although all such cases are segregated immediately on discovery. All natives are examined at intervals of not more than eight weeks, so that if there is contact with an infectious case the period of contact

must necessarily be limited. It is most improbable that contact with persons receiving treatment at the outpatients' clinic could result in infection.

Three of the children who have developed the disease come from families with a bad leprosy history. Three mothers are in segregation, two with nodular (C3) leprosy and one with a milder cutaneous form (C2). The other two mothers had the disease in a mild form and have been discharged from segregation and also from treatment at the clinic. One has died from pulmonary tuberculosis.

TABLE 1. *Leprolin test in leprous children.*

Case	Sex	Age	Classification	Reaction to Leprolin		Remarks
				Hansen	Stefansky	
E	F	12	C1N1	++	+	Resistance good. Is improving clinically and bacteriologically. In segregation.
R	M	6	C1N1	−	−	In segregation. Is improving clinically.
D	F	11	N1	−	++	Released from segregation 1935. Has improved greatly.
N	F	8	N1	±	±	Very mild case. Bacteriologically negative.
E	F	10	N1	±	±	Ditto.

From the facts set forth I am inclined to assume that the children of infectious mothers with a bad family history are more prone to develop the disease than others, and accordingly these children are all carefully watched for the development of early signs of leprosy. It must be noted, however, that five other children of two of these infectious mothers have so far shown no signs of infection.

Persons in segregation are not encouraged to have families, but as it is not our policy to separate husband and wife when both are affected, a certain number of pregnancies are to be expected. Not all the mothers are married, but illegitimacy carries no stigma amongst the Nauruans, and the unmarried mother cares for her child quite as well as does her married sister. Pregnancy, according to the available records, does not seem to affect adversely the course of the disease.

It is hoped that this short note may prove of interest to those who are charged with the care of children of leper parentage, and perhaps prompt someone with more material to record experiences and figures.

REFERENCES

(1) RICHARDSON, R. C. Experience with children of lepers. Internat. Jour. Lep. 4 (1936) 49.

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(3) GRANT, A. M. B. Leprosy at Nauru since 1928. Internat. Jour. Lep. 2 (1934) 303.

(4) MUIR, E. Juvenile Leprosy. Internat. Jour. Lep. 4 (1934) 45.

(5) MUIR, E. The leprolin test. Lep. Rev. 5 (1934) 83. *Reprinted from:* Lep. in India 5 (1933) 204.