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EXPERIENCE WITH CHILDREN OF LEPERS;

AT THE MIRAJ HOME FOR UNTAINTED CHILDREN

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The Miraj Home for Untainted Children was opened in 1919 for the purpose of caring for the untainted children of inmates of the Miraj Leper Hospital. Since then a total of 46 children have been admitted at ages varying from fifteen days to twelve years. The parents of several of them have not been in our leper hospital, and in a few cases the parents have never been seen by us, though we have had information of them. Children from the Belgaum, Mysore, and Ahmednagn Leper Hospitals and from outlying villages have been admitted.

These children are given all care possible under the circumstances as regards diet and cleanliness, and the conditions under which they live are far better than is normal for the general mass of the population in this region. They are given adequate medical attention when sick, and twice during each year examinations are made in the Miraj General Hospital to detect evidence of leprosy. Once a week they are driven the mile between the Home and the Leper Hospital to see their parent or parents there, this visit being at a distance to avoid contact. They attend the public schools of the neighborhood and are not ostracized or shunned by the other students.

This work is carried on as a part of the humanitarian and medical missionary work of the Mission to Lepers; it was in no sense intended or organized as a scientific experiment with respect to the infectiousness of leprosy in such children, and no report of it has heretofore been made in medical literature. However, in a recent letter the editor of this JOURNAL suggested that in view of the general importance of the question of the fate of children of lepers our experience may have features of interest. He pointed out:

...how interesting to leprosy workers are actual facts of experience with children removed from contact with lepers, as differentiated from opinions based on expectation. The fact is that there is available comparatively little data of that sort, and opinions on the subject are confusing.

On the one hand is the belief, apparently borne out by Hawaiian experience, that if babies are removed at birth practically none will develop leprosy, but one knows of no other positive evidence on this point, and experience here (in the Philippines), and also in Madagascar, indicates that the death rate in the first year makes it in most places impracticable to attempt to remove babies so soon. On the other hand some hold that all children of lepers, at least if they have remained with their mother for any time at all, will develop signs of infection, but here again general experience is against any idea of 100 per cent leprosy among such children. The whole question is in a very unsatisfactory state.

TABLE I.—Summarized histories of children admitted to the Miraj Home.

| Child | Sex | Caste | Admitted | | Leprous parents | History and status | Present Age |
|----------|-----|-----------|-----------|--------|-------------------------------------|------------------------------------|-------------|
| | | | Date | Age | | | |
| 1. N.K. | M. | Maharatta | Jan. '19 | 5 yrs. | Mother, C, dead. | Small-pox. Matriculation class. | 20 |
| 2. L.L. | F. | Christian | Jan. '19 | 5 yrs. | Father, arrested. | Measles. Home since 1931. | 20 |
| 3. L.L. | F. | Christian | Jan. '19 | 1 yr. | Father, arrested. | Home with parents since 1931. | 16 |
| 4. S.K. | F. | Maharatta | Jan. '19 | 3 mos. | Mother, dead. | A staff nurse in Ny-sore. | 15 |
| 5. A.G. | F. | Moham. | Jan. '19 | 3 mos. | Mother, burnt-out, deformed. | Schol. To train for nursing. | 15 |
| 6. B.I. | F. | Hindu | Jan. '19 | 7 yrs. | Mother, N, deformed. | Not robust, anemic. Training. | 22 |
| 7. Z.K. | F. | Hindu | Jan. '19 | 8 yrs. | Mother deformed, dead. | Married nonleper; four children. | 23 |
| 8. S.B. | F. | Christian | July '19 | 2 yrs. | Mother, C, dead. Father, arrested. | Healthy. Contemplates nursing. | 17 |
| 9. V.M. | M. | Hindu | Sept. '20 | 5 yrs. | Father, N, blind. | Measles. Training as compounder. | 19 |
| 10. A.M. | M. | Hindu | Sept. '20 | 3 yrs. | Father, N, blind. | Sturdy. Is a field laborer. | 17 |
| 11. L.B. | F. | Christian | Sept. '20 | 2 yrs. | Father, C, dead. Mother, N, beggar. | Measles. In high school, athletic. | 16 |
| 12. T.K. | F. | Christian | Sept. '20 | 3 yrs. | Mother, N, deformed. | School. To train for nursing. | 17 |
| 13. A.D. | M. | Christian | July '21 | 3 yrs. | Father C, dead. Mother, N, roaming. | In industrial school, masonry. | 16 |
| 14. R.O. | M. | Christian | July '21 | 1 yr. | Both, arrested, supporting family. | In school. Athletically inclined. | 14 |
| 15. I.P. | F. | Christian | July '21 | 5 yrs. | Mother, N, died. | In high school; plans to nurse. | 18 |
| 16. D.B. | F. | Christian | Nov. '21 | 1 yr. | Father, dead. | Normal. | 14 |
| 17. S.L. | M. | Hindu | Nov. '21 | 9 mos. | Both, C, dead. | Died in 1922 in teething. | — |
| 18. P.M. | M. | Christian | Feb. '22 | 5 yrs. | Mother, C, dead. | Robust. In school, hopes to teach. | 17 |
| 19. J.B. | M. | Christian | Mar. '22 | 6 yrs. | (Same as Nos. 8, 21 and 27.) | Patches in 1933. Clean, working. | 18 |
| 20. M.V. | M. | Christian | Mar. '22 | 4 yrs. | Mother, arrested. | In South India, attending school. | 16 |

| Child | Sex | Caste | Admitted | | Leprous parents | History and status | Present Age |
|----------|-----|-----------|-----------|---------|-------------------------------|-------------------------------------|-------------|
| | | | Date | Age | | | |
| 21. W.B. | F. | Christian | July '23 | 3 yrs. | (Same as Nos. 8, 19 and 27.) | Patches in 1923 and 1933; leprous. | 14 |
| 22. S.B. | M. | Hindu | Oct. '23 | 3 yrs. | Mother, dead. | Well; living with family. | 14 |
| 23. J.A. | M. | Hindu | Nov. '23 | 2 yrs. | Mother, C. | Sturdy; in high school. | 13 |
| 24. G.O. | F. | Christian | July '24 | 2 yrs. | (Same as Nos. 14 and 28.) | Measles. At home, attending school. | 12 |
| 25. R.D. | M. | Christian | July '25 | 12 yrs. | Father, not seen. | Farmer, on family land. | 21 |
| 26. R.D. | M. | Christian | Sept. '25 | 10 yrs. | (Same as No. 25.) | A licensed motor driver. | 19 |
| 27. B.B. | M. | Christian | Sept. '25 | 3 yrs. | (Same as Nos. 8, 19 and 21.) | Patches; recovered. A goat-herd. | 12 |
| 28. M.O. | M. | Christian | Mar. '26 | 2 yrs. | (Same as Nos. 14 and 24.) | Healthy, active. | 10 |
| 29. W.A. | F. | Hindu | Nov. '26 | 9 yrs. | Mother, dead. | Smallpox. In high school. | 17 |
| 30. S.A. | M. | Hindu | Nov. '26 | | (Same as No. 29.) | Otitis, deaf. Primary school. | 13 |
| 31. L.S. | F. | Hindu | Feb. '27 | 10 mos. | Both, dead. | Died of dysentery after 6 months. | — |
| 32. S.C. | F. | Hindu | Jan. '29 | 2 yrs. | Mother, N, under treatment. | Measles, ophthalmia. School. | 7 |
| 33. R.L. | F. | Christian | Oct. '29 | 2 yrs. | (Same as No. 2.) | With parents. School. | 7 |
| 34. H.S. | F. | Hindu | May '29 | 2 mos. | Both, dead. | Malnutrition, syphilis. Died 30. | — |
| 35. A.D. | F. | Hindu | Aug. '29 | 2 wks. | Father. | Normal. School. | 5 |
| 36. S.M. | F. | Hindu | Nov. '29 | 7 mos. | Mother. | Measless, syphile. Died 1931. | — |
| 37. C.D. | F. | Christian | Dec. '29 | 2 yrs. | Mother, arrested. | Scurvy, improving. School. | 7 |
| 38. A.B. | F. | Christian | Feb. '30 | 3 yrs. | Mother, dead. Father, beggar. | Healthy. | 7 |
| 39. M.L. | M. | Christian | Feb. '30 | 1 yr. | Mother, improved. | Taken home; had measles; died. | — |
| 40. S.S. | F. | Christian | July '31 | 9 yrs. | Father, N. | Patches, 1933; under treatment. | 12 |
| 41. M.P. | F. | Christian | July '31 | 2 yrs. | Both C. dead. | Seasonal diarrhoea. Well. | 5 |
| 42. C.B. | F. | Christian | July '32 | 3 yrs. | Mother, arrested. | Taken home by mother. | 5 |
| 43. B.Y. | M. | Hindu | July '32 | 6 mos. | Mother. | Healthy. | 3 |
| 44. I.T. | F. | Christian | Nov. '32 | 2 yrs. | Mother, burnt-out, deformed. | Scurvy, improving. | 5 |
| 45. B.P. | M. | Hindu | Nov. '32 | 1 yr. | Mother, beggar. | Taken home by father. | 4— |
| 46. J.P. | M. | Christian | Mar. '34 | 6 mos. | (Same as No. 41.) | Furuncles, 1934; recovered. | 1 |

In view of this I have been encouraged to offer summarized histories of the children that have been admitted to this home. These appear in Table 1. In this table C and N refer to the nodular and

nerve forms of leprosy, respectively, and "arrested" has its usual medical rather than social significance. The ages given are more or less approximate. So far as possible the leprosy parents' condition both at the time of admission of the children and now are given. Past illnesses of the children are noted, when any; their present condition is good except when otherwise stated. The "present age" is as of about the end of 1934.

Age on admission.—In many instances the age at the time of admission could only be approximated, though in no case would the error be great. As recorded, the age distribution was as follows: under 1 year, 9; 1 year, 5; 2 years, 10; 3 years, 8; these totalling 30, or 66 per cent of all. Of more advanced ages, 1 child was 4, 6 were 5, 1 was 6, 1 was 7, 1 was 8, 2 were 9, 1 was 10, and 1 was 12.

Deaths.—Of the children admitted 5 have died—one of measles after removal to his parents' home—this giving a mortality rate to date of less than 11 per cent. As is clear from the following tabulation, all of those who died were admitted as infants; 4 of the 9 who were less than 1 year of age on admission died in spite of the good conditions under which they were placed.

No. 17, 9 months old, died 4 months later, while teething.

No. 31, 10 months old, died 5 months later, of dysentery.

No. 34, 2 months old, died 9 months later; congenital syphilis.

No. 36, 7 months old, died 22 months later; syphilitic.

No. 39, 1 year old, died at home, of measles.

Cases becoming leprosy.—Only four of these children (Nos. 19, 21, 27 and 40) have developed evidence of leprosy infection so far as is known—and in this connection it is to be said that we have kept in fairly close touch with most of those who have left the Home. These four cases being of special interest, they are restated as follows:

No. 19, aged 6 years on admission (1922), developed patches in the following year and was transferred to the Leper Hospital. The patches had disappeared a year later, and he was released to his family. He is now 18 years old, lives an out-of-door life, and is very healthy, without any lesion.

No. 21, aged 3 years on admission (1923), had patches 3 months later. These disappeared under treatment by hydnicarpus injections, but recurred 10 years afterward (1933), when she was below par physically. She is again improving under treatment in the leper hospital.

No. 27, aged 3 years on admission (1925), had patches a year and a half later; but quickly recovered. He had the routine hydnicarpus treatment for one month. He is now living an out-of-doors life and is healthy.

No. 40, aged 9 years on admission (1931), lame because of infantile paralysis had in her village, developed anesthetic patches 2 years after admission. She is now under treatment in the leper hospital and has improved so greatly that she herself has requested a re-examination.

In all of these cases the only lesions were of the simple pale, anesthetic, bacteriologically-negative patches characteristic of neural-type leprosy.

With a view to the present age and the condition as regards leprosy, it may be said that of 28 living individuals observed for 10 years or more (average age 16.6 years), 2 developed leprosy patches while 21 have remained free. Of the 11 living ones observed 5 to 10 years (average age 11.4 years), only 1 developed lesions. If percentages are calculated for these small groups each gives 91 per cent remaining nonleprosy.

It is realized that no general conclusions can be drawn from so few cases, but they may be of interest particularly as they indicate that in this country at least a very large proportion of the children of lepers, even those who have had long exposure to the more infectious type of the disease, remain free from evidences of infection if removed to favorable surroundings before such evidences appear. It may be added that the records of this Home show that no other children of these parents were infected. It is indicated in Table 1 when two or more children were of the same parents.