

Leprosy in 18-month-old children, Bichena District, Gojjam Administrative Region, Ethiopia

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Summary In a mass survey of leprosy in Bichena District, Ethiopia, where a total of 814 new cases were detected, 2 cases of borderline-tuberculoid (BT) leprosy were discovered in children aged 18 months. Although incubation periods of less than 2 years are generally considered extremely rare, this finding emphasizes that young children under 2 years of age should not be excluded from leprosy surveys in endemic regions.

Introduction

A report on leprosy in children¹ states that the average incubation period (or interval between exposure to infection and the first recognizable symptoms) is 2–5 years, and leprosy cases in children below 2 years are exceedingly rare. In studies² on the life history of 462 children born at Kalaupapa Settlement on Molokai and living under a variety of conditions of early exposure to leprosy, it was concluded that living continuously with an untreated lepromatous parent results in leprosy infection in about 40% of such children, with onset of symptoms between 5 and 14 years of age.

Objectives

One of the main objectives of the mass survey which was conducted between 1 February and 14 May 1981 in Bichena District, Gojjam Administrative Region, Ethiopia, was to find leprosy cases as early as possible and put them under regular treatment.

Patients and methods

Leprosy case detection was carried out in 231 localities of Bichena District with a total population estimate of 235,700.

A population count was conducted by focal point survey where all the individuals in the community were gathered at a central place for systematic physical check up. The focal point survey was supplemented by a house-to-house survey.

Results

Eight hundred and fourteen new cases were detected during the survey, 168 (21%) falling in the 5–14 age group and 12 (1.5%) in the 1–4 age group. Among the 12 cases two children of 18 months were found to have borderline-tuberculoid (BT) leprosy.

The first child, a female, had a mother who had been diagnosed 7 months previously as suffering from borderline leprosy and had been treated with dapsons 100mg daily. The child had never visited a clinic before the date of the survey, 20 February 1981. Her father was healthy. The parents stated that the child's skin lesions had been present for 5 months, and examination revealed a number of hypopigmented macules on the back, arms and buttocks. A biopsy was taken from an active lesion, and the report from ALERT, Addis Ababa, stated: 'There are multiple small collections of epithelioid cells, lymphocytes, plus a few Langhans type giant cells, throughout the mid-dermis. No AFB seen. Opinion: BT leprosy.'

The second child, a boy, also 18 months old, had a lepomatous father who had been on treatment with dapsons during the previous 10 years, but the mother was healthy. The oldest child in the family, a girl of 10 years, was found at the time of the survey to have tuberculoid (TT) leprosy. The fact that the mother had no leprosy excluded any question of intra-uterine transmission. Examination of the boy revealed hypopigmented macules on both upper arms, buttocks and legs. He was sent to ALERT for further investigation where a diagnosis of borderline-tuberculoid (BT) leprosy was confirmed.

Discussion

In spite of the generally held view that in leprosy an incubation period of less than 2 years is extremely rare, we were able to find two children of 18 months suffering from leprosy out of a total of 814 patients diagnosed in the survey, an incidence of 0.24%. This finding emphasizes that young children under 2 years of age should not be excluded from leprosy surveys in endemic regions.

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