ORIGINAL

A COMMUNITY SURVEY OF HANSEN'S DISEASE IN RURAL BIHAR

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Abstract: *Residents of all 60 villages, who gave informed verbal consent to participate in this study were included in the sample and were investigated for presence of Hansen's Disease. Study population of 88973 individuals of all age groups. The collected data were tabulated and analyzed by using the statistical package SPSS (Statistical Package for Social Sciences) version 10.0 for windows. Prevalence rate of Hansen's disease was described in terms of proportion and its 95% confidence Interval. Prevalence of Hansen's disease was estimated to be 25.1 per 10,000 population (95% CI = 22-28/10,000 population). Multi-bacillary cases were 66.82% (95% CI=61%-73%) and childhood (<18 years) Hansen's disease cases comprised of 14.35% (95% CI=10%-19%) among them.*

INTRODUCTION

Since independence, India is striving for Hansen's disease control. India alone represents 64 per cent of the prevalence and 78 per cent of new case detection world wide[1]. The elimination level i.e. prevalence rate less than 1 case for 10,000 populations has been achieved in 16 states of India[2]. The WHO regime which is in vogue now has not gone through any field trial before its recommendation to use as back-bone in control as well as eradication programmes round the world[3].

MATERIALS AND METHODS

From January to June 2005, a study was conducted on 88973 population of the district of Kishanganj, Bihar by a multistage random sampling. Ten blocks of the district were selected by random sampling method. Then from each block, six villages (total 60) were selected by random sampling method. All households in 60 villages were screened. Every participant was interviewed and clinically examined and investigated after informed verbal consent was obtained and photographs of willing patients suffering from Hansen's disease were taken as part of documentation. The WHO criteria were applied for diagnosis of Hansen's disease. Approaches based on clinical classification were applied where reliable facilities for bacteriological examination of skin smears were not available and when classification was in doubt, patients were treated as multi-bacillary leprosy[4]. Data were tabulated and analyzed using the statistical software package of SPSS version 10.0. Results were calculated in the terms of proportions and their 95% confidence level (CL).

RESULTS AND DISCUSSION

In this cross sectional study, a total of 223 patients were diagnosed as suffering from Hansen's disease. The prevalence rate was determined to be of 25.1 per 10,000 population (95% Cl = 22-28 I 10,000 population). Multibacillary (MB) cases comprised of 149 (66.82%, 95% Cl 61%-73%). The proportion of males and females among MB cases were 104 (69.8%) and 45 (30.2%) respectively. Highest proportion of Hansen's cases (36.32%) were found in late adolescents and early adulthood, i.e., in the age group of (18-24) years. The median age of these patients was 23.8 years (lnterquartile range = 19.3years - 35.2 years). The majority (74.9 %) of cases were below 35 years of age. These findings were corroborated in textual facts[5].

It was also reported by other researchers that despite apparently curative antibacterial therapy, one quarter to one third of all patients often developed debilitating and permanent neurological deficits[5]. In this study, a high proportion 198(88.8%) of untreated fresh Hansen's cases with visible deformities of grade II and above (Table) was detected, where trophic ulcers were most common (28.8%); closely followed by ulnar clawing (21.7%). In this study, type I Lepra reaction was present among 9 (4%) of the patients while 5(2%) of them had Erythema Nodosum leprosum.

Table*: Visible Deformities(Grade-II) in patients suffering from Hansen's Disease*



CONCLUSION

There could be shortcomings on the part of local medical practitioners to misdiagnose some MB cases and treat them as PB cases. These inadequately treated MB cases must have remained infectious to the community for a long period of time. Another reason could be related to the potency of MDT which was introduced in 1983 as a quick-fix like solution for controlling the grave situation of Hansen's epidemic in developing countries without going through any extensive field or community trials[3]. Though Hansen's disease is eliminated in many parts of the globe and has recently lost our attention due to improvement in socio-economic conditions and extensive MDT management, this study serves as an eye opener to confirm that Hansen's disease still manifests as a disease of poor and rural people in developing countries like India.

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