



INCIDENCE AND CLINICAL PROFILE OF LEPROSY IN A TERTIARY CARE HOSPITAL VADODARA

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ABSTRACT **Introduction:** Leprosy is caused by Mycobacterium leprae. Leprosy an infectious disease still remains a major public health hazard because of fear, ignorance, deformities and disfigurement it remains as a social stigma. Though it has been eliminated from the world and from India, it has not been completely eradicated. New cases continue to occur indicating an active transmission of the disease from person to person. Therefore this present study was conducted to ascertain the incidence and clinical profile of leprosy cases at a tertiary care center Vadodara. This study further proposed various strategies to reduce incidence rates, as this disease, for the most part, is acquired by contact with the infected persons. **Material and methods:** Slit skin smears of clinical suspected case of leprosy were collected from skin OPD, medical college Baroda. And smears were stain with Ziehl & Neelsen staining for detection of Acid fast bacilli (AFB). **Result & conclusion:** 100 patients were recruited in to this study. 55 were male and 45 were female. AFB (M.leprae) was found in 25 cases in which 14 were males and 11 were females.

KEYWORDS : Incidence and Clinical Profile, Leprosy, ZN stain

INTRODUCTION

Leprosy or Hansen's disease is a chronic granulomatous and infectious disease primarily affecting the skin and peripheral nerves. Mycobacterium leprae is the causative agent, transmitted primarily by droplet spread from person to person. Though being one of the first infectious diseases to have its etiologic agent discovered, it remains a disease of public health concern because of the new cases occurring each year¹. It was eliminated as a public health problem from India in December 2005 with a prevalence rate less than 1/10,000 populations². India accounts for the highest leprosy burden, contributing more than 60% of the new cases of leprosy globally.³

Addressing the clinical aspects of the disease it mainly causes damages to the skin, the peripheral nerves, mucosal surfaces of the upper respiratory tract and the eyes resulting in impairment of nerve function and disabilities. The early form of disabilities manifest in the form of sensory loss of hands or feet often goes unobserved by both the clinicians and the patients furthering the transmission of M. leprae⁴.

AIMS & OBJECTIVES:

To study incidence of leprosy and clinical profile of it.

MATERIAL AND METHODS

Clinical records of patients provided information on demographic data, type of leprosy, details of clinical examination, and the treatment protocols. Slit skin smear examination for acid-fast bacilli, a valuable and cost effective tool was routinely used in the hospital setting for all the clinically suspected cases to confirm the diagnosis of leprosy. It was performed on a sample of skin smear to measure the level of leprosy indicators in the skin smear.

These smears were then stained with modified Ziehl-Neelsen stain and examined under oil immersion to look for acid fast bacilli (AFB). Demonstration of AFB by slit skin smear is still considered important for diagnosis, management, and classification of leprosy.^{5,6} Although biopsies give a better demonstration of AFB, it is an invasive method without any definitive role in the management of Leprosy.^{7,8,9} Henceforth we used the slit skin smear method for routine management of all cases of leprosy.

RESULTS

A total of 100 clinically suspected leprosy cases reported to our hospital, out of 100 cases 25 were positive.

TABLE NO.1: AGE WISE DISTRIBUTION OF 100 CASES:

AGE GROUP	TOTAL CASES	POSITIVE CASES
<20 YEARS	09	03
20-40 YEARS	49	13

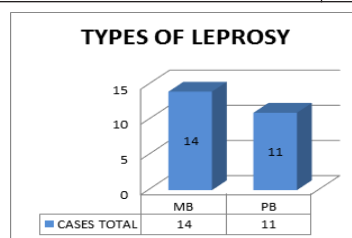
>40 YEARS	42	09
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TABLE NO. 2 SEX WISE DISTRIBUTION OF 100 CASES

SEX	TOTAL	POSITIVE
MALE	55	14
FEMALE	45	11

TABLE NO.3: BACTERIOLOGICAL INDEX OF POSITIVE

CASES: BACTERIOLOGICAL INDEX	NO
0-1+	12
2+	7
3+	1
4+	5
>4+	0



DISCUSSION

The diagnosis of leprosy is primarily clinical. Patrick Manson described the earliest method of diagnosis by squeezing the nodule and examining the obtained exudates microscopically.

In the present study, we used a slit skin smear examination for AFB as it possesses nearly 100% specificity and remain the simplest diagnostic technique currently available.¹⁰

We stratified the collected data according to age, sex, type of Leprosy. Majority of leprosy cases in our present study belongs to the age group of 20-40 years (middle age) similar to the finding in other studies.^{11,12,13} The reason for the disease being more common in this age group indicates susceptibility because of increased mobility and opportunity for contacts in the larger segment of the population. A male preponderance was seen in our study. Male preponderance in our study group is in concordance with other studies on leprosy as well.^{14,15} This male predominance can be attributed to more of outdoor activities in search of livelihood leading to a higher chance of them contracting the infection.

The precise treatment for Hansen's disease is the multi-drug therapy by

the WHO. It is administered in accordance with the operational classification of the patient as either Paucibacillary or Multibacillary. This categorization is paucibacillary (PB) for cases with 5 skin lesions or less or multibacillary (MB) in the case of more than 5 lesions.^{16,17} Therefore once diagnosed, a leprosy patient ought to be classified for therapeutic reasons.

Majority of the new leprosy cases in our study had multibacillary leprosy 14 cases (56%), as opposed to 11 cases (44%) paucibacillary cases (PB). Patients with these multibacillary forms of the disease are considered the major source of infection.¹⁸ MB predominance has also been reported in other studies.^{19,20} Increased percentage of MB cases indicates the occurrence of advanced cases of Leprosy, and indirectly the extent of infection, in the nearby communities surrounding the hospital.

CONCLUSION

Our study showed the current status of leprosy in a tertiary care hospital. Although leprosy is eliminated from India, new cases are still being reported necessitating the need for appropriate control strategies and initiatives to decrease this incidence. Surveillance, early diagnosis, and complete treatment can help eradicate this disease in the near future.

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