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A STUDY OF EMERGENCE OF HANSEN'S IN A TERTIARY CARE HOSPITAL INTHE ERA OF ERADICATION

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Abstract

Introduction: Hansen's disease is a chronic infectious disease caused by Mycobacterium Leprae. India declared elimination of leprosy in December 2005, but a slow resurgence of the disease still continues. **Aims and Objectives:** To analyse the clinical and bacteriological findings ofnew and recurrent cases of Hansen's disease in the post elimination era. **Material and Methods:** Study includes a total of 292slit-skin smears received from Department of Dermatology, Venereology and Leprosy to the Department of Microbiology for a period of 18months (Jan 2020 to June 2022) from patients. All samples are processed according to standard microbiological procedures. **Results:** A total of 276 patients for a period of 2 years 6 months were included. The most common clinical spectrum was Lepromatous Leprosy followed by Borderline Lepromatous Leprosy. Out of 292 SSS,181 were positive. **Conclusion:** The study brings forth evidence on the slow re-emergence of Leprosy in India.

Keywords: Hansen's disease, leprosy, slit-skin smear, infection, resurgence

Introduction: *Mycobacterium leprae* is the cause of the chronic infectious disease. It mainlyaffects the skin, nasal mucosa and peripheral nerves. *Mycobacterium leprae*, is an acid-fast bacilluswhich is transmitted via droplets from the nose and mouth during close contacts with untreated cases. It eventually lead to disability, disfiguration and social stigma for the rest of patient's life if untreated. Therefore, early detection of *M. leprae* is the key element to timely identification and treatment of patients before nerve involvement occurs. Leprosy was declared eradicated in India in December 2005, however the illness has been slowly resurgent ever since. Leprosy is primarily diagnosed clinically, however straight forward slit-skin smear microscopy helps with an accurate diagnosis. Slit-skin smears, which have an almost 100% specificity when done correctly, continue to be the most basic diagnostic method until new state-of-the-art diagnostic technologies are regularly made accessible for use at the bedside.

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Aims and Objectives

To analyse the clinical and bacteriological findings of new and recurrent cases of Hansen's disease in the post elimination era

Material and Methods

This is a descriptive, hospital-based, retrospective study of newly diagnosed patients with Hansen's disease enrolled in the Hansen's disease clinic in Department of Dermatology, Venereology and Leprosy outpatient department (OPD) and Department of Microbiology Andhra Medical College-King George Hospital, Visakhapatnam for a period of 2 years 6 months (January 2020 to June 2022) from 276 patients.

The current study sought to examine the clinical and bacteriological results of newly diagnosed cases of Hansen's disease in the post-elimination period. This research enrolled treatment-naive, fresh instances of Hansen's disease identified using WHO criteria. Sample size of Study includes a total of 292 slit-skin smears .All samples are processed according to standard microbiological procedures for SSS by Acid Fast Staining and Microscopy. A retrospective chart review of the patients was performed to acquire information regarding clinical features and SSS findings.

Results

In this study, a total of 276 patients met inclusion criteria (newly diagnosed cases, old cases, all ages and sex) were included , 151(54.72%) were found to be male and 125 (45.28%) female. The maximum cases were found in the age group between 21-40 years which contributed to 120 cases (43.47%). The most common clinical spectrum was Lepromatous Leprosy followed by Borderline Lepromatous Leprosy. Out of 292 SSS, 181 (61.9%) were positive and 111(38.1%) were negative.

Figure:1

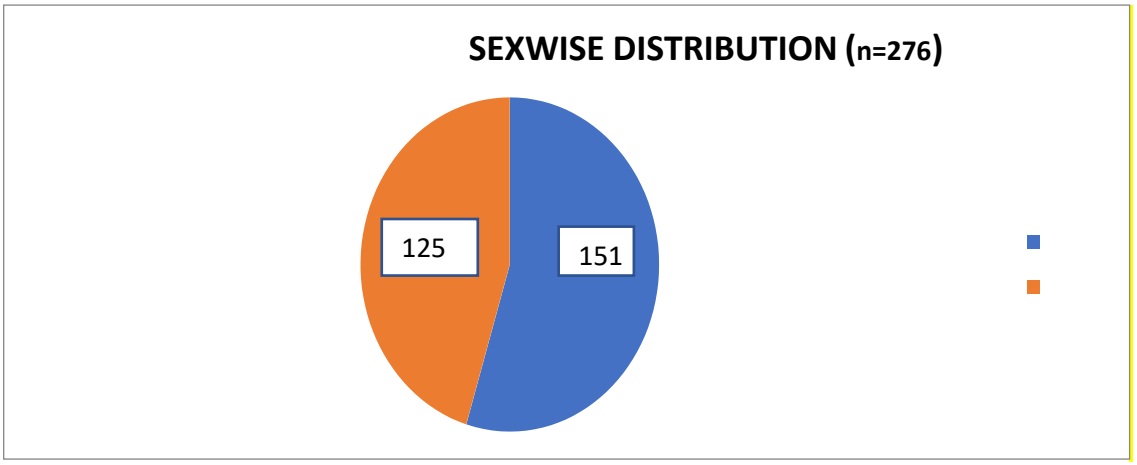

Table:1

AGEWISE DISTRIBUTION(n=276)		
1-20	57	20.65%
21-40	120	43.47%
41-60	71	29.58%
61-80	28	11.66%

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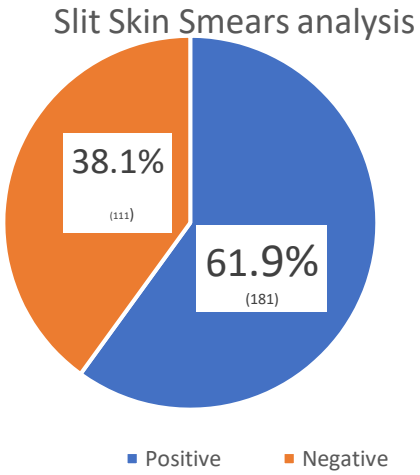
FIGURE 2:



Discussion:

Generally, leprosy is believed to be more common in males. The present study also showed same. Male predominance may be because of many factors such as industrialization, urbanization and more opportunities for contact in males.

TABLE:2

STUDY	**SLIT SKIN SMEAR POSITIVE**
Neirita Hazarika et al	39.6%
Kakkad et al	70%
Bhushan. P. et al	56.57%
Gopala Rao B et al	59.31%
Present study	61.9%

TABLE:3

DISTRIBUTION BASED ON GENDER			
STUDY	MALE	FEMALE	TOTAL
N.Hazarika et.al	79	37	116
Shraddha et.al	27	23	50
P.Bhushan et.al	102	39	141
P.Premalatha et.al	26	4	30
Present Study	151	125	276

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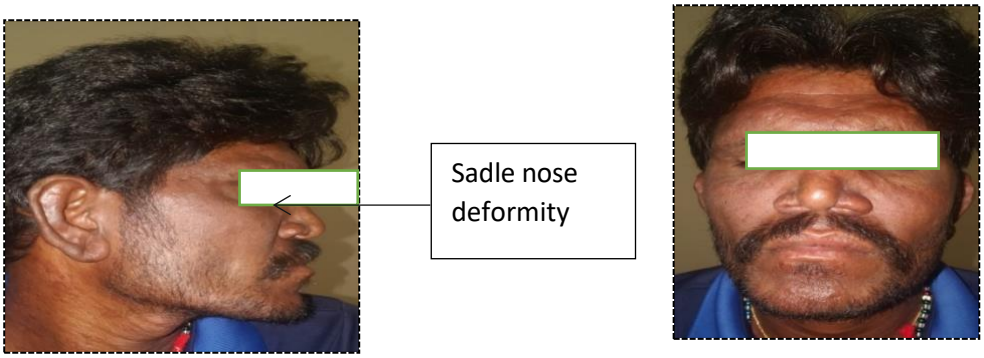
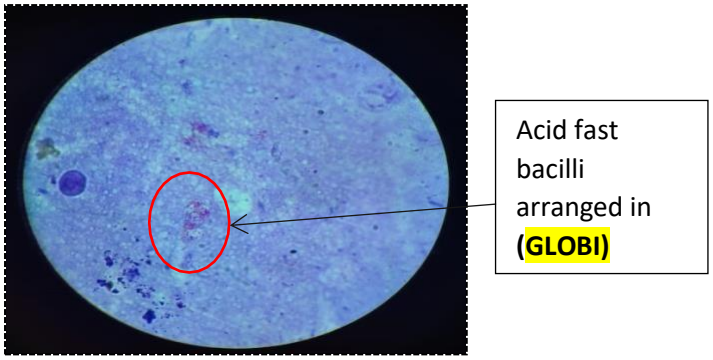
Conclusion:

The study brings forth evidence on the slow re-emergence of Leprosy in India. In this study, Multibacillary cases outnumber the Paucibacillary cases. There is a need to take steps to curb the further spread of Hansen's disease in the community.

IMAGE 1:

Classical case of Lepromatous Leprosy (LEONINE FACIES)





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