



## STUDY OF PAUCI BACILLARY AND MULTI BACILLARY LEPROSY IN ASHTI TAHSIL, DIST. WARDHA (M.S.).

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### **Abstract:**

The present investigation was carried out to study Multi bacillary and Pauci bacillary leprosy cases in different villages of Ashti Tahsil, Di. Wardha (M.S.) The present investigation showed that 120 cases of Paucibacillary leprosy (PB) were identified since 1990 to 2014 of which 89 were males and 31 were females while only 04 cases of Multi bacillary leprosy (MB) were identified. Prevalence of leprosy was found less in females as compared to males. There were 41 cases of follow up of which 16 were males and 25 were females. The effective treatment of leprosy was given in the form of Multi Drug Therapy (MDT) a combination of two or three drugs, Rifampicin, Dapsone and Clofazimine.

**Keywords:** Leprosy, Multi bacillary, Pauci bacillary, MDT, Ashti.

### **Introduction:**

Leprosy is a millennial disease, a Biblical one. And its victims have been segregated and discriminated against forever. People also don't like to talk about it, but leprosy is a very common disease in a number of countries like Brazil. Even worse, children are the silent victims of leprosy, because adults infect them easily; and a delay in diagnosis can lead to severe and permanent damage, including paralysis of the hands. The solution is to make the eradication of this disease a priority. Leprosy isn't widespread like malaria or TB, but it is debilitating, and there are traumatic repercussions. It shouldn't be this way, and we can treat this disease. People should not be losing their right to healthy lives to this.

Stopping the spread of leprosy is essential, and we need to make a concerted effort to diagnose it. We have developed a way to rapidly diagnose the disease. And, once we identify affected people, we must treat them so they don't develop irreversible neurological problems. The key barrier is an available diagnostic test that we can implement early on. We have therapeutics now, but they are often administered too late and have to be given for a long time in order to work. A better answer is better treatment of an early infection. This would be a big improvement, because now we often apply a mass antibiotic to people – whether they're infected or not! Look at 2013 positively. We have better treatments that are getting even better, and we are confronting leprosy in a strong and smart way.

The present investigation deals with the study of Pauci bacillary and Multi bacillary leprosy cases in Ashti Tahsil, Di. Wardha. (M.S.) since 1990 to 2014.

### **Methods of Leprosy Detection:**

Leprosy is caused by a bacteria *Mycobacterium leprae*. It is strongly acid fast (it is stained red by a dye called carbolfuscin and the red colour cannot be removed either by acid or alcohol). The presence of the bacilli can be demonstrated by taking smears from skin/nasal mucosa (slitting the skin and scraping the material with blade and spreading it on a glass slide, staining it with the ZiehlNeelsen method and examining under the microscope). Usually skin smear in leprosy is taken from three sites (skin lesions, both ear lobes). The smears may be either positive or negative for *M. leprae*. Leprosy patients whose smears are positive are more infectious than those who are not.

### **Results and Discussion:**

After making a diagnosis of leprosy, the patients were grouped in two categories depending on certain characteristics (Table-1). This was important in selecting the correct combination of drugs for a given patient.

The present investigation showed that 120 cases of Paucibacillary leprosy (PB) were identified since 1990 to 2014 of which 89 were males and 31 were females (Fig.2.Table-2) while only 04 cases of Multibacillary leprosy (MB) were identified (Fig. 1). Prevalence of leprosy was found less in females as compared to males. There were 41 cases of follow up of which 16 were males and 25 were females.

Leprosy is among the world's oldest and most dreaded diseases and it has been synonymous with stigma and discrimination due to the hideous deformities it produced, mystery around its aetiology and transmission and lack of any effective remedy till recently. The results of present study showed that though leprosy

control started with the use of multi drug therapy (MDT) for last three decades, however a parallel drop in the incidence or new case detection rate (NCDR) had not occurred (NLEP Report, 2007). From 1994 through 2011, more than 100,000 new cases were detected annually, of whom maximum case load was from India.

Efforts had been made to reduce deformities through early detection, self care, physiotherapy and reconstructive surgery particularly for the treatment of nerve damage in leprosy (Van Veen et. al., 2009). Penna et. al.(2005) and Walker et. al. (2007) studied the role of thalidomide in the treatment of erythema nodosumleprosum. Aberdein and Singer (2006) also studied the use of corticosteroids in leprosy infection. Evaluating the role of immunotherapy and immunoprophylaxis would also lead us to better understanding of their mode of action. Further molecular analysis of Mycobacterium

leprae genome might provide the requisite basis for all this.

Many workers studied about early diagnosis of leprosy (Moet et. al.,2004, Nicholls et. al.,2006) still there is need for research on tools for early diagnosis , short and effective treatment and prevention of deformities and disabilities. Though researches had been made to reduce the stigma and discrimination (VanBrakel, 2003, Heijnders and Van Dermeij, 2007) related to leprosy but the current reality is that there is a need to sustain and provide quality leprosy services to all persons through general health services, including good referral system. All these provisions in the integrated health care approach will go a long way in further reducing the stigma. It is hoped that with the efforts of all the stake holders and strong political will, the disease will be eradicated in the near future.

**Table -1:** Criteria for grouping leprosy types.

<b>Characteristics</b>	<b>Paucibacillary (PB)</b>	<b>Multi bacillary (MB)</b>
1 Skin lesions	1-5 lesions	6 and above
2 Peripheral nerve	No nerve/only one nerve involvement	More than one nerve
3 Skin smear	Negative at all sites	Positive at any site

**Table-2 :** Review of Pauci bacillary cases in different villages of AshtiTahsil ,Di- Wardha.

<b>SR.No.</b>	<b>Name Of The Village</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
1	Ashti	24	16	08
2	Chistur	05	04	01
3	Belora	02	01	01
4	Sirkutani	05	05	00
5	Sujatpur	01	01	00
6	Antora New	03	03	00
7	Parsoda	05	03	02
8	Jaitapur	03	01	02
9	Daultpur	01	01	00
10	Ganeshpur	01	01	00
11	Chincholi	02	02	00
12	LahanArvi	04	04	00
13	Kinhala	04	02	02
14	Chamala	02	02	00
15	Sirsoli	02	02	00
16	Ajitpur	01	01	00
17	Ranwadi	02	01	01
18	Tekoda	01	01	00
19	Harishwada	03	01	02
20	Bambrda	01	01	00
21	Khadki	02	02	00
22	Belora	03	02	01
23	Anandwadi	02	02	00
24	Bharswada	09	05	04
25	Bhishnur	01	01	00
26	Kakaddhara	08	05	03
27	Ramdara	11	07	04
28	Talegaon SP	12	12	00

**Fig. 1 MULTIBACILLARY CASES**

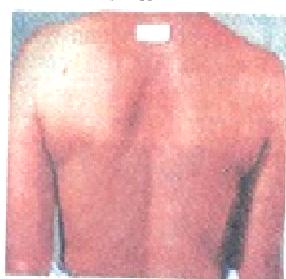
Multiple, sharply-demarcated, scaly reddish-brown plaques; these subsiding lesions are only partially anaesthetic. (Borderline Tuberculoid (BT))



Numerous and widespread borderline-type plaques, Annular lesions, papules and maculae; center of large lesions show some loss of sensation. (Borderline Lepromatous (BL))



Numerous pale patches over buttocks and trunk. No. 6 hence MD Leprosy (Numerous pale patches)



Fairly uniform symmetrically distributed, infiltrated, maculo-papular lesions, none of which show sensory impairment. (Borderline Leprominatus (BL))

**Fig. 2 PAUCIBACILLARY CASES**

These vague, patches, with reduced colouring (hypopigmentation) compared to the surrounding skin, were found on the left shoulder region. They increased in size during a period of observation and showed loss of sensation to cotton wool and pinprick. Paucibacillary (PB) Leprosy.



Well defined, dry and rough-surfaced plaque on cheek, insensitive to touch and pain; note papulo-nodular lesions near eye and upper lip. To be categorized as PB if there are more patches on other parts of the body.



Well defined hypopigmented lesion with dry surface and moderately raised granular margins; completely anaesthetic. (Tuberculoid (TT))



A large area on lower part of the forearm, with vague edges. Lesion increased over 2 months observation showing reduced sensations. Paucibacillary Leprosy.

## **Conclusion:**

We must also safely immunize everyone in the household who has had contact with leprosy to stop the spread to others. leprosy's victims often lead lonely and isolated lives, because of the stigma attached to the disease – a stigma that is often affixed to the entire family. So it's important to remember that this long-term, destructive and debilitating illness has serious consequences in addition to death. The most important thing we can do is provide new tools, so we can be proactive in detecting and treating the infection early.

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