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LEPROSY – A NTD, SOCIAL EVIL & HOMOEOPATHY

Dr. Tridibesh Tripathy[1] Professor Shankar Das[2] Prof. D.P. Singh[3] Prof. Rakesh Dwivedi[4] Prof. Byomakesh Tripathy[5] Prof, D.R.Sahu[6] Dr. Umakant Prusty[7] Dr. Pramod Bihari Pradhan[8] Dr. Jeevan Krushna Pattanaik[9] Dr. S.N.Pandey[10] Ms. Sanskriti Tripathy[11] Mr. Ranvijay Singh[12]

Homoeopathic & Public Health Expert, Visiting Professor, Master of Public Health (Community Medicine) program[1], Pro Vice Chancellor, TISS, Mumbai & Former Director, IIHMR, Delhi[2], Dean, School of Research Methodology, TISS, Mumbai[3], HOD, Department of Social Work, Lucknow University, Lucknow[4] Academic Director, IGNTU, Amarkantak, MP & Former VC, Utkal University of Culture, Bhubaneswar, Odisha,[5] HOD, Department of Sociology, Lucknow University, Lucknow[6] Research officer (Homoeopathy), CCRH, Puri, Odisha[7] Nodal Officer (Homoeopathy), AYUSH Mission, Govt. of Odisha, Bhubaneswar[8] Medical Officer, Dr. ACHMCH, Bhubaneswar, Odisha[9] Former District Homoeopathic Officer, Govt. of UP[10] IIIrd year student, B.Tech in Biotechnology, Bennett University, Greater Noida, UP[11]
Department of Social Work, Master of Public Health (Community Medicine Program[1].
Lucknow University, Lucknow, UP, India[1]

Abstract: On Mahatma Gandhi's death anniversary that falls on 30th January, India marks anti leprosy day every year. Since 1980s, the disease has a curable approach but the laws that govern are stuck in the British era. Currently, there are more than 100 laws that are from the British era. The lepers act of the raj era discriminate against persons with leprosy. The current article looks at the laws & social issues related to leprosy at state level, national level. Beginning with the historical perspective of leprosy, it delves into the therapeutics that also includes the homoeopathic therapeutics. The article discusses the Essential Medicine (EM) properties & popularity of homoeopathy in the Indian context. The article suggests a treatment protocol based on homoeopathic system of therapeutics. Further, the article discusses the concept of Neglected Tropical Diseases (NTD) of World Health Organization (WHO) in which leprosy is one of the NTDs. This is one such NTD where the disease is completely curable but social issues related to leprosy have eclipsed the accrued therapeutic benefits since last 44 years. The cure for the disease is available since 1980. As social issues are tightly embedded in the entire leprosy domain, it is time to take benefit of the cultural factor related to homoeopathy. Homoeopathy came from Germany but India adopted it so whole heartedly that it became a part of the cultural integration in the context of medical pluralism. The article sees the role of homoeopathy of the AYUSH ministry through this unique lens.

Index Terms - Leprosy, Homoeopathy, Miasm, NTD, NLEP, MDT

I. INTRODUCTION

Leprosy is also known as the Hansen's disease. The Myco Bacterium Leprae, the bacteria responsible for the disease was discovered by Dr. Gerherd Armauer Hansen in 1874. He was a Norwegian physician who was searching for the unknown bacteria in the skin nodules of lepers. As per WHO, the load of the leprosy at the global level is concentrated in African & South Asia regions currently. However, cases are there in the Americas, East Mediterranean & Europe. As per WHO, currently Africa has 22, 022, India has 103,819, Americas has 21, 387, East Mediterranean has 3,770, South East Asia has 124,377 cases. Europe has only 53 cases. The disease mainly affects the skin, peripheral nerves, mucosa of Upper Respiratory Tract (URT) & the eyes. The treatment regime of Multi Drug Therapy (MDT) in leprosy is in place since 1995. Further, WHO informs that 17 million patients have received MDT over the last four decades across the globe. [1-5, 10-13]

The three cardinal signs of leprosy are 'hypo pigmented anesthetic skin patch', 'enlarged thickened nerve', 'demonstration of AFB in skin smear'. There has to be at least one sign to be present in the patient for diagnosis. [4]

Literature Review

When we analyze the issue of leprosy, it is seen as an emblem of social inequalities & historical power of social stigma. Leprosy is a very complex disease to eradicate as it is related to poverty, lack of health facilities & lack of education. In 2016, the 'Global Leprosy Strategy- 2016-2020: accelerating towards a leprosy free world' was launched. The efforts of various stakeholders wish to reach a complete eradication of disease from endemic areas & by all humanity to fight against prejudice & abolish all forms of discrimination. The effort should not only aim for extirpation of the disease but also suppression of a distorted mentality towards sick people & their social role. [1-5]

The elimination of leprosy is defined as a registered prevalence of less than one case per 10,000 populations. The elimination concept was put into place in the year 2000. However, in 2018, it was found that there were 208,169 cases of new leprosy from 159 countries. It is found that in endemic areas, the numbers of cases are 17 times higher than those reported officially.[1-5]

As per WHO in the year 2023, India is at the top regarding number of cases. India is followed by Brazil in the second place & Indonesia in the third place. As per Stastista, in 2022, 103,819 number of new cases of leprosy were found in India. The number of new leprosy cases as per WHO in September 2023 per year from 2013 to 2022 is given in the table below. [1-5.15]

Table-1- Number of new leprosy cases (2013-2022) [1-5, 10-13]

Year	Number of new leprosy cases
2013	1269
2014	125785
2015	127326
2016	135485
2017	126164
2018	120334
2019	114451
2020	65147
2021	75394
2022	103819

Regarding therapeutic intervention in leprosy, the literature review details out the use of Chaulmoogra oil that is extracted from the plant botanically known as Hydnocarpus Kurzii' or Gynocardia Odorata or Taraktogens Kurzii. It is also commonly known as Turaka seeds oil. It was used as a drink or for rubbing the affected parts. The table below gives the progress on the therapeutic field regarding leprosy. [1-5]

Table 2- Therapeutic Progress in Leprosy [1-5]

Year	Therapeutic Progress
1915	Chaulmoogra oil
1940s	Development of Sulfone therapy (Dapsone) by Dr. Guy Faget of Carville
1960s	Bacterial resistance develops to Dapsone
Early 1960s	Development of Rifampicin & Clofazimine
1981	Adoption of Rifampicin, Clofazimine & Dapsone by WHO
1995-2020	Free of cost of MDT by WHO
6 months duration of MDT	In Pauci bacillary cases
12months duration of MDT	In Multi bacillary cases

Epidemiology

Government of India launched the national Strategic Plan (NSP) & road map for leprosy from 2023 to 2027. The plan was launched on 30th January 2023 to achieve zero transmission of leprosy by 2027. This is three years ahead of Sustainable Development Goals (SDG) 3.3. The reporting of leprosy cases is done in 'Nikusth' which is a web based information portal. As per the National Leprosy Eradication Program (NLEP), there were 1,25,785 cases in 2014-15 & it came down to 75, 394 in 2021-22. This accounted for 53.6% of global new leprosy cases. India achieved the elimination of leprosy as a public health problem as per WHO criteria of less than 1 case per 10,000 population at the national level in 2005. Among the states & union territories, Bihar & Madhya Pradesh have the highest prevalence rate of 0.9 cases per 10,000 population. This data is up to January 2023. [1-5, 10-13]

Leprosy Program in India

The following table gives the brief related to the programs on leprosy in India.

Table 3- Leprosy programs in India [4]

Year	Program
1955	National Leprosy Control Program with Dapsone Monotherapy
1982	Introduction of Multi Drug Therapy with Rifampicin, Clofazimine & Dapsone
1983	National Leprosy Eradication Program
2005	India achieved elimination of leprosy to <1case/10,000 population.
2005-2024	Campaigns like Aswamedham, LCDC, ACD & RS, ELSA, SLAC launched
2021-2030	Leprosy included in WHO NTDs strategy & India adopts it through adoption of National Strategic Plan from 2023-2027.

These programs are backed by campaigns like Aswamedham, Leprosy Case Detection Campaign (LCDC), Active Case Detection & Regular Surveillance (ACD & RS), Eradication of Leprosy through Self reporting & Awareness (ELSA), SPARSH Leprosy Awareness Campaign (SLAC). [4]

The SPARSH Leprosy Awareness Campaign (SLAC) was launched on 30th January 2017 & is a program intended to promote awareness & address the issues of stigma & discrimination. [4]

To augment the intervention, there is also a network of 30 organizations as development partners to the state governments in their programs on leprosy. The notable ones are Leprosy Mission Trust of India (LMTI), Kusthrog Nivaran Samiti (KNS) & the Fair Med-Swiss Emmaus Leprosy Relief Work in India. The Fair Med India works in India since 1957. The stakeholders work on the institutionalized & the outreach strategies depending on their programs. [8,34]

Leprosy- a NTD of WHO

Neglected Tropical Diseases (NTD) are a diverse group of conditions of parasitic, bacterial, viral, fungal & non-communicable origin. These NTDs are Buruli ulcer, Dracunculiasis or Guinea Worm Disease, Human African Trypanosomiasis or Sleeping Sickness, Leishmaniasis, Leprosy or Hansen's Disease, Lymphatic Filariasis or Elephantiasis, Onchocerciasis or River Blindness, Rabies, Schistosomiasis or Bilharzia, Soil Transmitted Helminthiases, Taeniasis, Cysticercosis, Trachoma, Yaws or Endemic Trepanomatoses. [6]

Currently, India is adopting the strategy of NTDs of WHO for the leprosy related programs & activities.

Complex issue of Laws on Leprosy

In states like Madhya Pradesh & Tamil Nadu, the law can detain beggars affected by leprosy even today. These states still adhere to the Lepers Act of 1896. Scientific progress on leprosy & the laws related to leprosy are totally out of sync. In the year 1893, when Swami Vivekananda became famous through his historic speech in Chicago, the same year the Leprosy Commission of India (LCI) gave the report on leprosy. The report focused on determinants of leprosy like sanitation, nutrition & voluntary isolation. In 2015, the 256th report of the law commission recommended the repeal of the Lepers Act. In 2016, the Rights of Persons with Disabilities Act covered leprosy. The beneficiaries of the Act include leprosy cured persons, persons with physical or sensory impairment due to leprosy. Till 2022, 33 central & state laws have been amended. Currently, the state of Andhra Pradesh has 16 laws discriminatory provisions on leprosy. The state is followed by Odisha with 9 discriminatory laws, Kerala with 8, Madhya Pradesh & Tamil Nadu with 7 laws each. [9]

Recent examples of amendment of laws regarding leprosy are Tamil University Act, 2022, UP cooperative societies 45th amendment rules, 2006 & Rajasthan rehabilitation of beggars or indigents amendment Act of 2020. [9]

Chemoprophylaxis & Immuno-prophylaxis in Leprosy

Both chemo & immune prophylaxis have different mechanisms of protection & are complementary to each other. Mycobacterium Indicus Pranii (Mw) vaccine has efficacy up to 8-10 years in India. LEPVAX is another vaccine. Other vaccines are Recombinant BCG, Mycobacterium Habana, Mycobacterium Vaccae, ICRC bacilli, BCG+ Killed M. Leprae, Mycobacterium Bovis-BCG. However, till date there is no effective vaccine against Leprosy. [8,10]

Homoeopathic medicines have a role in boosting the immunity & hence can be clubbed with the strategy of immune-prophylaxis. Evidence shows that appropriate implementation of chemoprophylaxis & immune-prophylaxis using the Mw vaccine will help to reduce the burden of leprosy transmission in society & sustain the same. [8,10]

The Future

Currently, the major challenge faced by India is the continued occurrence of new leprosy cases as the New Case Detection rate has been static over the last decades i.e. from 2011 to 2021. There is a need for an inclusive strategy in the Indian Leprosy Program that includes an inter-sector collaboration within the country for reaching the desired goal of leprosy eradication. [3-7]

Perspective of Homoeopathy

As mentioned above, there is futile vaccine effort & serious challenges as no single strategy is effective. Here, a thought is to be given to the National Policy on Ayurveda, Yoga & Naturopathy, Unani, Siddha, Homoeopathy & Sowa Rigpa (AYUSH) medicines where it is proposed that the AYUSH system needs to be integrated into the mainstream. Sowa Rigpa, the Tibetan method was included in AYUSH in the year 2012. [16]

Similarly, the 'Essential Medicine' properties as mentioned in the National List of Essential Medicines (NLEM) document augments the inclusion of Homoeopathy in the leprosy related interventions. Another document that augments well for incusion of homoeopathy into the domain of leprosy is through the National List of Essential AYUSH Medicines (NLEAM). The properties of Homoeopathic medicines that are talked about is the cost effectiveness, therapeutically effective & no side effects. [29-32]

In India, currently 10% of the population or 15 crores use homoeopathy. This number is derived using the projected population of India to be 150 crores. [33]

In the beginning of the disease, the disease comes under the domain of 'Psoric' miasm. Here in this stage, the changes in the body are derangement in the functional level primarily. Miasms are disease causing

dynamic influences that are infectious in nature. As the disease progresses, the dominant miasm is 'Syphilitic' as it destroys tissues & nerves. Hence, miasmatically the disease is under the domain of 'Psorico-Syphitic' miasm. Complications of the disease such as the plantar ulcers come under 'Syphitic' miasm. [19-27]

Homoeopathy has many drugs to deal with leprosy. The therapeutic system has an active role to play in leprosy as the disease involves a series of immunological responses. The major drugs of leprosy are given below.

'Anacardium', 'Bacillinum','Badiaga', 'Calcarea Carb', 'Carbo Animalis', 'Carbo Veg', 'Carboneum Sulph', 'Causticum', 'Chaulmoogra', 'Comocladia', 'Calotropis G', 'Diptherinum', 'Graphites', 'Hoang Nan', 'Hydrocotyle', 'Iris Ver', 'Kali Iod', 'Lachesis', 'Leprominum', 'Leprosy Nosode', 'Mephitis., 'Natrum Carb', 'Nuphar Luteum', 'Phosphorus', 'Piper Methysticum', 'Psorinum', 'Secale Cor', 'Sepia', 'Silicea', 'Sulphur', 'Tuberculinum'.[19-27]

Another prominent book mentions the following drugs for leprosy. These are 'Ars', 'Crotalus H', 'Hydrocotyle', 'Secale Cor', 'Sepia', 'Silicea', 'Sulphur'.[21]

Homoeopathy focuses on individuality of each patient. A generalized approach to deal with leprosy has its cons thus not being able to contain spread of new cases. The vaccine approach does not see success yet. The homoeopath has to evaluate the symptoms of the patient homoeopathically that excludes the generalized symptoms of leprosy.

However, the specific medicines are 'Leprominum', 'Hydrocotyle', 'Calotropis G' & 'Leprosy Nosode'. [19,20]

Along with these medicines, the homoeopath can prescribe the 'Bowel Nosodes', 'Bach Flower' medicines to address the gut, mental & physical health. Homoeopathy has already proved its mettle during the recent COVID 19 pandemic that covered masses easily. This beneficial attribute of homoeopathy can be used in the leprosy related interventions. [28,30,31]

Conclusion

With new cases being an obstacle & no effective vaccines, it is time to look into the homoeopathy system of Ministry of AYUSH that addresses the unreached areas of the current intervention. A long term cost effective, therapeutically effective with no side effects approach can be in place on integration of homoeopathy into the domain of leprosy related interventions.

The integration of homoeopathy into the leprosy related interventions will not only help India but also it will be a successful pilot to deal with leprosy at the global level through adoption of the pilot especially in the leprosy endemic countries. India can set an example in this regard. The intervention related to homoeopathy of AYUSH can also be initiated with the leading stake holders or development partners in India.

As homoeopathy has become a part of the culture in India, the intervention will help to deal with the related social evils of leprosy.

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Declaration

The lead author declares that the Homoeopathic protocol given here is only suggestive in nature.

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