Leprosy can be treated. But can ‘mental leprosy’ be removed from the society?

One of the oldest diseases known to man, leprosy still prevails in many countries. The disease is still considered to be the grave outcome of one’s heinous deeds and consequently the sufferer is ostracized and victimized by society. The psychologically destructive potential of leprosy is immeasurable, persisting agony leads to a tremendous deterioration of the patient’s mental setup.

Despite integrating leprosy with the general health services under dermatology departments of district hospitals in India and the involvement of the World Health Organization, World Bank, and other organizations, its incidence is alarming.

Discovery of Leprosy
Mentioned in the Atharva Veda, leprosy was first described completely, along with its causes, types, symptoms, prevention and cure, by Sushruta in 600 BC. This is acknowledged in the Encyclopaedia Britannica 2008 as well as in the Cambridge Encyclopaedia of Human Paleopathology (1998). Sushruta, the first surgeon, and Charaka, the first physician, both wrote about leprosy. These eminent medical scientists described lack of personal & domestic hygiene, unhealthy surroundings and faulty food & feeding habits as the major predisposing factors of leprosy.

Much later, a Norwegian physician, G.H.A. Hansen identified Mycobacterium leprae as the causative agent of leprosy in 1873 and thereafter the disease was nicknamed the Hansen disease. The leprosy bacterium is a rod-shaped, acid-fast bacillus similar to tuberculosis bacterium, Mycobacterium tuberculosis. Though there is no fixed number of types of leprosy in Ayurveda, it is classified into 18 types from treatment aspects.

According to modern medicine, leprosy is basically of two major types—tuberculoid and lepromatous leprosy. Both types are characterized by lesions on the skin but lepromatous leprosy is most severe having large disfiguring nodules. Typically, tuberculoid leprosy causes sharply localized lesions often restricted to only one part of the body, while lepromatous leprosy is symmetrical and affects many parts of the body.

Geographical Distribution
Leprosy is common in the tropical and sub-tropical regions of Asia, Africa and South America. India has the largest number of leprosy patients in the world, accounting for about 60% of the total cases diagnosed globally. This is followed by Brazil. A few years ago, Myanmar was the third country in terms of leprosy cases but now Indonesia is ranked third.

South India has more patients than north India. Out of the 2.5 lakh new cases of leprosy recorded globally in 2008, India had 1.37 lakh, followed by 38,914 cases in Brazil and 17,441 cases in Indonesia. Nepal, Madagascar, Mozambique, Tanzania, Egypt, China, Japan and Philippines are some other countries which have leprosy patients. The incidence of the disease also occurs in temperate countries including the United States, Canada, Norway, the Netherlands, and Australia. In the US, the disease is mostly found in California, Texas, Louisiana, Florida, New York and Hawaii.

Symptoms
The primary symptoms of leprosy are skin discolouration and loss of sensation in the affected parts of the body. The bacteria affect peripheral nerves, especially of the cooler parts of the body such as hands, feet, nose, earlobes and testicles. Less commonly, patients have ophthalmological problems including watering eyes, an ulcerated cornea, photophobia and even blindness. Infection of testicles leads to sterility. On the other hand, ovaries and other deeply situated organs and glands remain unaffected.

Due to numbness, patients often unconsciously get cuts, burns and other sorts of damage to the feet, hands and other nerve-damaged parts of the body. Very soon secondary infections set in and these injured areas develop into deep wounds that harbor a variety of parasites feeding upon healthy tissues. Pus comes out easily from such wounds. Gradually these parts undergo decay leading to deformity.

The anaesthesia caused due to nerve damage is the most important aspect in disease diagnosis. Keeping this view in mind, patients are strictly instructed to take great care of their affected parts. Leprosy probably causes more paralysis and deformity than any other disease. Since it does not affect visceral or vital organs, it rarely causes death. Amazingly, the bacterium has a very long incubation period, usually requiring 2-10 years from infection to the appearance of symptoms. This is due to the very slow rate of multiplication of M. leprae. Contrary to the mere 20-30 minutes required by most bacteria to reproduce, leprosy bacteria take about 14 days to multiply inside living cells.

Apart from the deformity and lesion related leprosy described above, there is another, more common type of leprosy called leucoderma characterized by hypo pigmented spots on the body. It is
commonly called "shweta kusta" while lesion causing leprosy is called "maha kusta" in Sanskrit and Hindi. Initially, a small spot develops on the skin anywhere on the body and later it grows and may spread to many other parts or all over the body surface. If the spots are in parts of the body and later it grows and may be horrific. Called multibacillary type of leprosy. The severity with multiple 2-3 cm deep wounds, economic status. Majority of patients educated and have high social and exceptional to find patients who are well academic background, it is not from the poor social, economic and individuals. Though majority of sufferers are the disease is prevalent in poorly nourished awareness standards of leprosy patients. A vast variation exists in the degree of disease severity, social, economic and except for leprosy. Studies show that leprosy is not hereditary. Children are more susceptible to leprosy. Several acts and laws are immune to M. leprae and do not get the infection. Only 5% of the human population, with weak immune system, is susceptible to leprosy. Walking bare-footed in leprosy hospitals or leper colonies increases the probability of contracting the disease.

The good aspect of leprosy is that the disease is not as contagious as it is generally thought to be. More than 95% of individuals are immune to M. leprae and do not get the infection. Only 5% of the human population, with weak immune system, is susceptible to leprosy. Walking bare-footed in leprosy hospitals or leper colonies increases the probability of contracting the disease.

Range of Patients
A vast variation exists in the degree of disease severity, social, economic and awareness standards of leprosy patients. The disease is prevalent in poorly nourished individuals. Though majority of sufferers are from the poor social, economic and academic background, it is not exceptional to find patients who are well educated and have high social and economic status. Majority of patients suitable for indoor therapy have very high severity with multiple 2-3 cm deep wounds, called multibacillary type of leprosy. The shapes of the wounds become quite horrific. When left untreated, the nerve damage caused by Mycobacterium leprae gives way to other pathogens, accelerating the morbidity manifolds including osteomyelitis with soft tissue infection and even maggots in the wounds. The disease is more common between the age of 20 and 50 years, though it can also affect infants.

Treatment of Leprosy
The World Health Organization (WHO) of the United Nations has been playing a leading role to treat and eliminate leprosy. In 1982, it introduced multi drug therapy (MDT) as a chemotherapeutic measure to treat leprosy by combining three anti-leprosy drugs—dapsone, rifampicin and clofazimine. Before the availability of MDT, dapsone had been the only anti-leprosy, bacteriostatic drug available since 1940 for about three decades.

Due to prolonged use of dapsone monotherapy, leprosy bacteria became resistant to the drug. Later on, clofazimine as an anti-leprosy antibiotic came into use in 1962, followed by rifampicin in 1970. MDT is available in the form of blister calendar packs, free of cost, at government health facilities. It is claimed that the use of MDT for 6 months to one year cures leprosy.

Laprosorium
A laprosorium is a secluded place for leprosy patients. Laprosoria were first built in Europe in the middle ages to segregate patients from communities. Leprosy patients were segregated due to lack of knowledge leading to fear of contracting the disease easily. Several acts and laws against leprosy patients were also enacted. In the United States, the patients were secluded by law and had to leave everything behind, including their names and their hopes for the future. Similarly, Japan had a very severe practice of segregating leprosy patients based on leprosy prevention laws. The status of leprosy in India is quite terrifying. Lack of or poorly existing medical facilities, illiteracy, poverty and above all the indifferent attitude of concerned officials has forced a majority of lepers to waste their lives and indulge themselves in hateful deeds. A large number of lepers can be noticed begging. During British Rule, the Indian government enacted "The Lepers Act 1898" to legalise socially segregating leprosy patients. This act is still applied by the Government. Even now there are more than 1000 leper colonies existing in India. High doses of Rifampicin can be teratogenic. Similarly, Clofazimine causes
gastrointestinal disorders, dark discolourations of skin, cornea & body fluids, pruritus, rashes and dry skin. It has the ability to discolor the skin of breast-fed infants. Pregnant women using MDT give birth to underweight babies.

Suggestions for Control
Until and unless the concerned government authorities and health professionals take an active part in leprosy eradication with appropriate therapeutic measures, this dreadful disease will never be controlled. The approach should not be confined to relieving the patients of the pathogen, a holistic strategy is of utmost importance in leprosy treatment. The cured patients must be encouraged to join their family and society for leading an active life instead of staying on in leper colonies or elsewhere.

Despite the combined efforts of the International Federation of Anti-leprosy Organizations (ILEP), World Health Organisation, government and non-government organizations, the level of incidence of new leprosy cases is alarming. Misdiagnosis of leprosy is obviously a problem that should not be neglected. It is the need of the hour that international, national, and regional agencies have a system of procuring reliable data about existing and new cases identified.

Many private doctors, hospitals and NGOs are involved in treating leprosy but their records are not included in the leprosy survey carried out by the government or WHO officials. Moreover, the WHO should not hastily announce the achieved target of leprosy elimination from any country or territory without investigating the real situation thoroughly and honestly. Decisions taken injudiciously have the potential threat of worsening the epidemiology of leprosy.

Leprosy has never been considered a disease, instead it is perceived as a condition resulting from the sins committed in a person’s present and/or past lives. Therefore, it is always thought of as a social stigma. Subsequently, the sufferer is deprived of many biological, emotional and societal needs. How can we change the mindset of the members of the family and community? How can medicines heal the physical damage if the patient suffers from enormous frustration? Leprosy elimination programmes must incorporate provisions to remove ‘mental leprosy’ from the family and society.

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