

# Towards UNDERSTANDING LEPROSY

Non-Communicable Disease



By: 

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# TOWARDS UNDERSTANDING LEPROSY

NON-COMMUNICABLE DISEASE  
(Islamic Research)

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## INTRODUCTION

Allah in the name of, the most affectionate, the merciful.

It is a great pleasure to be able to present to you this 5th English article in our eight years of Publication.

Raza Islamic Centre was founded in August 1991. at D.G.Khan to introduce the versatile personality and cyclopaedic work of Ala Hazrat Imam Ahmad Raza Khan Baraelvi (1856-1921) with regard to his religious, political, economical, educational and especially scientific contributions worldwide.

Alahazrat Imam Ahmad Raza Khan wrote 1000 books on more than 100 spheres of knowledge. Because of his vast and inspired knowledge, nearly all the renowned personalities of the world have appreciated him. And the universities are awarding the honour degrees of M.Phil/PhD to the research scholars, doing research work on Imam Ahmad Raza.

The latest research has astonished the Muslim World that Imam Ahmad Raza had full command over 240 books about Ilm-e-Hadith and more than 90 books about Ilm-e-Fiqha (Islamic Jurisprudence).

The highly honoured saint and renowned theologian, Alahazrat Imam Ahmad Raza Khan was a sword of Islam and a great commander for the cause of Islam. He was a Quranic Translator, commentator, Muhaddith, great jurist, revivalist, educationist, economist, psychologist, philosopher, religious poet and a scientist. But his distinctive quality is his love for the Holy prophet (Sallallahu Alaihe Wasallam)

The unique feature of this issue is an article about Medical Science 'Towards understanding leprosy' Non- communicable disease'. In this article, Islamic research about leprosy has opened up new avenues to success. Because the more the modern science is going to unfold the realities of the universe, the more the Islamic truths become evident. Leprosy is regarded by the general population with a feeling of fear (communicable effect) and shame (Social Stigma). The subject matter of this booklet is to provide original information to both professional workers and general public, with the aim to convey the universal message of Islam that

"Leprosy is non-communicable disease", so that a better understanding should be maintained. And the sufferers should be adequately managed. Moreover, families of the sufferers also need to understand the problems in order to be able to manage Leprosy patients in a more effective manner.

In 1995, there held a leprosy seminar at D.G. Khan on 26,27 November 1995. In this seminar, lady Dr. Chris Schmotcher and Dr. Iqbal Ahmad from Leprosy Hospital Rawalpindi (PAK) delivered lectures, showed slides and discussed short cases about leprosy to the Medical officers of the Punjab. At the end of the Seminar, I awarded them about the Islamic research on leprosy by Alahazrat Imam Ahmad Raza Khan Baraelvi (1856-1921) that 'Leprosy is non-communicable disease'. Both the researchers astonished and appreciated Imam Ahmad Raza's Islamic research with open hearted.

In short, Alahazrat Imam Ahmad Raza Khan is the first Muslim theologian of the 20th Century who elaborated about leprosy in his book "ALHAQEL MUJTALA FE HUKIMEL MUBTALA 1905" that "Leprosy

is non- communicable disease” in the light of Islamic thoughts (with reference to 33 Hadith Mubarka). So Alahazrat surpassed the Muslim world and his Islamic contribution will be remembered with pride.

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## **ORIGIN OF LEPROSY**

Leprosy is an ancient disease of man involving skin and peripheral nerves. The origin of leprosy is still unknown. Most probably it is considered that INDIA, CHINA, SODAN and EGYPT had been the most ancient homes of leprosy. The researchers claim that it spread throughout the world from one of these countries.

The geographical distribution tells us that it is widely spread throughout the tropical and sub tropical areas of the world. It is mainly, but not entirely contracted in childhood and late adolescence. Leprosy is round about limited to Asia and Africa with the following ratio:

Asia	62 %
Africa	34 %
South Africa	3 %
Other countries of the world	1 %

The latest statistical biodata tells that there are 10- 20 millions leprosy sufferers worldwide today. Out of this, live millions are receiving Medical treatment and  $\frac{1}{4}$  of these patients are registered with the ratio:

Asia	$\frac{2}{3}$
India more than	$\frac{1}{2}$
Africa less than	$\frac{1}{3}$

According to latest statistical research, there are 20-30 thousand leprosy patients in Pakistan. Most sufferers live in various provinces of Pakistan like NWFP, Punjab, Baluchistan, Sindh (Karachi) and Azad Kashmir.

## **HISTORY OF LEPROSY**

Leprosy is a chronic, granulomatous disease of human being, caused by *Mycobacterium leprae* — an acid fast bacillus morphologically, rod like intracellular organism (8 Ym long, 0.3 Ym diameter). The researchers claim that if *Mycobacterium leprae* are found in nasal mucous membrane, lymph nodes, testes, small blood vessels, then leprosy is infectious/contagious and when it is found in deep tissues, it is non-infectious. It has been investigated that leprosy requires for its transmission some factors associated with poverty or lack of hygiene that is common in the areas where it is still endemic.

There was a time when leprosy was considered to be a divine curse and sufferers was hated because of communicable/contagious disease. With the result they died without receiving any treatment. This fact cannot be denied that the problems of social stigma caused by leprosy are more often troublesome than the disease itself.

On the historical basis, leprosy can be divided into following periods:

### **Period 1(1847 — 1873):**

During this period DANIEL & BOECK made research on leprosy and gave the first accurate clinical description about leprosy. And it was considered as communicable/contagious disease with unknown cause. So sufferers were not managed with effective treatment.

### **Period II (1873 —1960):**

In 1873 AC Professor Gerhard Henrick Armauer Hansen (1841 — 1912), Physician incharge of a leper Hospital near Bergan, Norway, made

research experiments on leprosy and discovered Mycobacterium Leprae (causative bacillus of leprosy).

### Period III (1960-onward):

In 1960, Shepard made clinical research and described the limited multiplication of Mycobacterium Leprae to screen drugs for anti-leprosy activity.

### Period IV (1905-Islamic Research):

It is important to note that in 1905, a renowned Worldwide Scholar, Ala Hazrat imam Ahmad Raza Khan Baraelvi(1856—1921) discussed leprosy as non-communicable/Non-contagious, disease in the light of Islamic thoughts with reference to his book entitled:

“ALHAQEL MUJTALA FE HUKMEL MUBTALA 1905”

## DIAGNOSIS AND CLINICAL FEATURES

Leprosy is a systemic disease of man affecting predominantly skin, upper respiratory tract and dermal and peripheral nerves.

For diagnosis, there are three cardinal signs of leprosy.

1. Skin lesions.
2. Nerve lesions.
3. Presence of Mycobacterium Laprae in the skin and the mucosa of the upper respiratory tract.



The important clinical features of leprosy are:

- a. There is a loss or impairment of sensation with or without a patch. Patch may be hypopigment (whitish) or erythematous (reddish).
- b. The skin lesions have also red, swollen, shiny nodules (lumps).
- c. In nerve lesions, there is thickened nerves, weakness of small muscles with disability and deformity of hands and feet. The sensory effect is peripheral neuropathy with disability.

## YPES AND CLASSIFICATIONS

Leprosy can be classified into four major types:

- a) Indeterminate Leprosy.
- b) Tuberculoid Leprosy.
- c) Lepromatous Leprosy.
- d) Borderline Leprosy.

Other types of Leprosy are:

- i. Pure neural Leprosy.
- ii. Histoid Leprosy.

Another classification of leprosy based on three systems is as follows:

- |                          |                     |           |
|--------------------------|---------------------|-----------|
| 1. WHO Classification    | Paucibacillary      | 2 groups. |
|                          | Multibacillary      |           |
|                          | Tuberculoid leprosy |           |
| 2. MADRID Classification | Borderline Leprosy  | 3 groups  |
|                          | Lepromatous Leprosy |           |



## **FEATURES OF SPECIFIC TYPES OF LEPROSY**

### **1. INDETERMINATE LEPROSY:**

- Earliest, non-contagious, unstable form of leprosy
- May resolve spontaneously or change to another clinical form
- Skin lesions show slightly hypopigmented or erythematous patch with impairment of sensation
- Patch may be roughly oval or rounded in shape
- No nerve involvement.
- Lesions are frequently noted on exposed surfaces of the skin.

### **2. TUBERCULOID LEPROSY:**

- Mild and unstable form of leprosy.
- Does not change to another form
- Skin lesions show one or few solitary lesions, hypopigmented or erythematous patches with well defined margins, oval or rounded in shape. Surface of skin is dry and scaly, loss of sensations with loss of hair.
- Nerve lesions are present. One or more peripheral nerve trunks are thickened.
- A combination of 5th and 7th cranial nerve damage resulting in Blind Eye.

### 3. LEPROMATOUS LEPROSY:

- This is a polar and infectious/contagious form of leprosy. Organisms (*Mycobacterium Leprae*) are present in the dermis with large amount in the groups (globi). They are carried in blood stream to distant and deep organs including muscles, lymph nodes, bone marrow, spleen and liver (Kupffer cells).
- Skin lesions are macular, infiltrative, diffuse or nodular. Lepromatous macules are numerous, hypopigmented erythematous ill defined, generalized and symmetrical.
- The affected parts, in early stage, appear smooth and shiny but in advanced stage, nodulations with corrugation of skin occurs.
- Nerve damage is at later stage of the disease.
- There is ulceration of mucous membrane of Nose, mouth and trachea.
- There is necrosis of the cartilage and bones with complications.
- Testes may be destroyed and gynaecomastia ensue.
- Nephritis and Amyloidosis are late complications.
- A less common manifestation "Leonine facies" is due to diffuse, symmetrical thickening of the skin often with thickened lobes of the ears.

### 4. BORDERLINE (Or Dimorphous LEPROSY).

- Unstable and intermediate form between Lepromatous and Tuberculoid types.
- Skin lesions are annular, bizarre shaped with ill defined outer margins.

- May be plaques or succulent lesions more raised at the centre than at the periphery.
- Lesions may be few or numerous in number, reddish or brownish in colour with smooth and shiny surfaces.

### **MANAGEMENT OF LEPROSY:**

Leprosy causes more paralysis, deformity and misery than any other disease but with the help of chemotherapy, these problems have been solved with better health promotion. The management of leprosy is based on:

1. Medical Treatment.
2. Surgical Treatment.
3. Physiotherapy.
4. Rehabilitation

#### **1. MEDICAL TREATMENT (CHEMOTHERAPY)**

- a) DAPSONE (50-100mg/day) for at least 3 years for all types of leprosy but much longer duration for lepromatous leprosy.
- b) Rifampicin.
- c) Clofazimine
- d) Prothionamide
- e) Thiacetazone.

#### **2. SURGICAL TREATMENT**

Surgical Treatment is required when there is deformity. The stigma of leprosy is the stigma deformities are of two types:

**i) Primary Deformities.**

Those which are caused directly by Leprosy and its reactions

**ii) Secondary Deformities**

Those result from anaesthesia and consequent misuse.

It is important to note that many patients manifest acute episodes known as 'reactions' These reactions are of two types:

1. Type I Reaction (or the Lepra)
2. Type II Reaction (Erythema nodosum Leprosum)

Mild reactions \_\_\_\_\_ Analgesic + Tranquillizers

Severe Reactions \_\_\_\_\_ Antimonial Drugs  
(Stibophen, Fouadin)

More Sever \_\_\_\_\_ Steroids (like thalidomide)

**DIFFERENTIAL DIAGNOSIS:**

Leprosy may be mistaken for some other disease. Diagnosis can be made when following cardinal signs of the disease are present.

1. Loss of sensation.
2. Enlargement of nerves.
3. Presence of acid fast bacilli.

However, the possibility of the presence of multiple diseases should always be kept in mind. The following skin diseases can be confused with Leprosy.

1. Pityriasis alba.
2. Tinea Versicolor.
3. Contact dermatitis.
4. Avitaminosis.

5. Psoriasis (acute & residuel)
6. Post inflammatory hypochromia.
7. Granuloma multiforme.
8. Lupus vulgaris.
9. Granuloma annulare.
10. Tinea circinata.
11. Pityriasis rosea.
12. Tubercularis verrucosa cutis.
13. Neurofibromatosis.
14. Leukemia cutis.
15. Scleroderma.
16. Xanthomatosis.

### MODERN RESEARCH ABOUT LEPROSY.

Modern research claims that:

1. About 70% leprosy sufferers are non-communicable and 30% are communicable.. But with the treatment of few weeks, leprosy becomes non-communicable. So after exhaustive experimental investigations, the researchers claim and advertise worldwide that leprosy is no more communicable.
2. Leprosy patients receiving regular anti-leprosy medicine can not pass the disease to the others.
3. 90 % of adult population will never get leprosy as they have natural defense (immunity) against leprosy.
4. Leprosy is neither a hereditary disease nor a sexually transmitted disease.
5. Leprosy is a curable disease.

6. Early and appropriate treatment will rapidly reduce infectivity and thus break the chain of transmission.
7. Early treatment will prevent nerve damage and hence reduce the risk of disability.

### ISLAMIC RESEARCH ABOUT LEPROSY.

Islam is a complete system/code of life for every nation and every time. For Human prosperity and welfare, its principles are well balanced from every respect like physical, Mental, Psychological, Socio economical and Health etc.

The realities tell us that there is no dearth of renowned personalities in the history of Islam who made rich contributions in various fields of knowledge especially Medical Science. Such a highly honoured and cyclopaedic theologian of the 20th Century is Alahazrat Imam Ahmad Raza Khan Baraelvi (1856 — 1921), who, about one century ago, wrote a book on Leprosy entitled “AlHaqel Mujtala Fe-Hukmel Mubtala 1905”.

In his book, Alahazrat guided the humanity and directed an international message of Islam to the whole world that “Leprosy is non-communicable disease”.

It is important to note that Alahazrat has claimed in his book, “AlHaqel Mujtala Fe-Hukmel Mubtala 1905” with sayings of the Holy Prophet (Sallallahu Alaihe Wasallam) that:

1. No disease is communicable/contagious including Leprosy.



2. If the disease were communicable, then the whole world would become gradually the target of diseases.
3. How the first single sufferer get the Leprosy?
4. If a male Leprosy sufferer wants consumation with his wife, she can't refuse it. And a woman (wife) can not claim for dissolution o marriage against her husband (Leprosy sufferer) due to Leprosy disease”.

It is evident that in the early days, if Islamic Ideology was followed, the modern science (especially Medical Science) could better serve and manage the human being in regard to disease prevention and Health Promotion. Well, the better late than never.

It is highly interesting that the Universal Declaration of the rights of Leprosy patients by Raoul Follereau, Founder of World Leprosy day, has been already discussed by Alahazrat Imam Ahmad Raza Khan in his book “AlHaqel Mujtala Fe-Hukmel Mubtala 1905”. No doubt this shows the supremacy of Islam.

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