



## Antileprosy Drugs or Leprostatic Drugs

**Tapan K Chaudhuri\***

Hampton, Virginia, USA

\*Corresponding Author: Tapan K Chaudhuri, E-mail: tkchaudhuri44@gmail.com

Received: January 23, 2019; Published: March 15, 2019

Treatment of Leprosy has been standardized worldwide by WHO recommendation which was issued in 1982. Like tuberculosis, the treatment of Leprosy involves multidrug therapy (MDT). The three drugs of choice are: Dapsone, Rifampicin, and Clofazimine. Monotherapy with one of these drugs is now obsolete due to development of drug resistance.

### Dapsone

Dapsone was first synthesized in Germany in 1908. Chemically it is 4,4'-diaminodiphenylsulfone. It was first used in 1941 as monotherapy in the treatment of Leprosy. It works as a bacteriostatic agent by inhibiting folic acid synthesis in the bacteria.

The dose is 100 mg daily.

The side effects of Dapsone are hemolysis, methemoglobinemia, nausea, vomiting, headache, and fatigue. Methemoglobinemia is more severe in patients with Glucose-6-phosphate dehydrogenase deficiency. Rare side effects are phototoxic reactions, urticaria, skin eruptions, erythema multiforme, DRESS Syndrome, agranulocytosis, and hepatitis.

### Rifampicin

Rifampicin was first synthesized in Italy from gram-positive soil bacteria - *Mycobacterium rifamycinum*. It was first industrially manufactured in 1965. It has a bactericidal action by inhibiting the bacterial enzyme - RNA polymerase. Within a few days of treatment, the bacteria are not detectable in the lesions.

Rifampicin is teratogenic. It reduces the efficacy of oral contraceptives.

### Clofazimine

It was first synthesized in Dublin in 1954. It is a red dye and was first used in the treatment of leprosy in Nigeria in 1959. It has mainly anti-inflammatory action and minor bactericidal action.

The dose is 50 mg daily taken under supervision.

The side effects of Clofazimine are red-brown hyperpigmentation of leprosy lesions, conjunctiva, and body fluids, xerosis, nausea, vomiting, intestinal obstruction secondary to deposition of Clofazimine crystals in the intestinal mucosa [1].

### Bibliography

1. Fischer M. "Leprosy - an overview of clinical features, diagnosis, and treatment". *Journal der Deutschen Dermatologischen Gesellschaft* 15.8 (2017): 801-827.

Volume 3 Issue 4 April 2019

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